DIRECTORATE OF DISTANCE EDUCATION

M.A., Education

III SEMESTER

34832

QUALITY ISSUES IN EDUCATION

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COURSE CODE 34832
TITLE OF THE COURSE QUALITY ISSUES IN EDUCATION

BLOCK I: QUALITY IN HIGHER EDUCATION, PERFORMANCE INDICATORS AND BENCHMARKING IN HIGHER EDUCATION

UNIT I: Introduction to Quality Education

UNIT II: Needs of Quality Education
Need for quality in higher education – Factors influencing quality – Accountability: Impact of accountability and accreditation on stake-holders and society.

UNIT III: Performance Indicators
Performance Indicators in Higher Education: Concept – Types – Uses – Performance Indicators of NAAC

UNIT IV: Benchmarking in Higher Education
Meaning Types Benefits Methodologies and procedures.

BLOCK II: ASSESSMENT AND ACCREDITATION BY NAAC AND TOTAL QUALITY MANAGEMENT IN EDUCATION

UNIT V: Quality Assessment and Accreditation
Meaning Types Accreditation procedure

UNIT VI: Accreditation by NAAC
Existing practices – New methodologies and initiatives of NAAC accreditation – Re-accreditation process

UNIT VII: National Board of Accreditation (NBA)

UNIT VIII: Total Quality Management in Education
Definition – Elements – Management plans – Approaches to TQM – TQM Process

BLOCK III: ACADEMIC AUDIT GLOBAL STANDARDS AND CERTIFICATION FOR EDUCATIONAL INSTITUTIONS

UNIT IX: Academic Audit
Objectives – Advantages – Limitations – Accreditation and Academic Audit.

UNIT X: Quality in Global Perspective
Global standards – Strategies for matching global standards – International practices of accreditation

UNIT XI: Certification for Educational Institutions
UNIT XIII: Statutory Bodies in the Field of Education Important functions and contributions of the following: MHRD, UGC, NCERT, NCTE & NIEPA
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1. Armond V. Feigerbaum, Total Quality Control, McGraw Hill.
2. Ron Collard, Total Quality, Jaico, Delhi.
5. Townsend & Gebhardt, Commit to Quality, John Wiley & Sons
UNIT 1 - QUALITY IN HIGHER EDUCATION

Structure

1.1 Introduction
1.2 Objectives
1.3 Quality Concept in Higher Education
1.4 Quality-Related Terminologies
1.5 Reasons for Maintaining Quality
1.6 Pre-requisites for quality
1.7 Let us sum up
1.8 Unit End Exercises
1.9 Answers to Check your Progress
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1.1 INTRODUCTION

In a society full of diversity, ideologies and opinions, higher education means different things to different people. In terms of the level, higher education includes college and university teaching-learning towards which students’ progress to attain higher educational qualification. Higher education imparts in-depth knowledge and understanding so as to advance the students to new frontiers of knowledge in different walks of life (subject domains). It develops the student’s ability to question and seek truth and makes him/her competent to critique on contemporay issues. It broadens the intellectual powers of the individual within a narrow specialization, but also gives him/her a wider perspective of the world around.

According to Ronald Barnett (1992) there are four predominant concepts of higher education:

i) Higher education as the production of qualified human resources. In this view, higher education is seen as a process in which the students are counted as “products” absorbed in the labour market. Thus, higher education becomes input to the growth and development of business and industry.

ii) Higher education as training for a research career. In this view, higher education is preparation for qualified scientists and
researchers who would continuously develop the frontiers of knowledge. Quality within this viewpoint is more about research publications and transmission of the academic rigour to do quality research.

iii) Higher education as the efficient management of teaching provision. Many strongly believe that teaching is the core of educational institutions. Thus, higher education institutions focus on efficient management of teaching-learning provisions by improving the quality of teaching, enabling a higher completion rate among the students.

iv) Higher education as a matter of extending life chances. In this view, higher education is seen as an opportunity to participate in the development process of the individual through a flexible, continuing education mode.

Interestingly, all these four concepts of higher education are not exclusive; rather they are integrated and give an overall picture of what higher is in higher education. If we look at the activities of colleges and universities, we will realize that teaching, research and extension form the three main functions of higher education.

1.2 OBJECTIVES

After going through this unit, you should be able to

* define Quality
* understand the Quality Concept in Higher Education
* understand the Quality-Related Terminologies
* analyze the reasons for maintaining quality

1.3 QUALITY CONCEPT IN HIGHER EDUCATION

The Webster’s Dictionary describes it, amongst other things, as ‘a degree of excellence’ and ‘superiority in kind’. In the field of education, while discussing quality, the focus of students may be on the facilities provided, of teachers on the teaching/learning process, of management and parents on the scores or grades achieved, and of prospective employers on the nature of the output.

Mukhopdhyay (2005) remarks that, depending on the goals, the term ‘Quality in education’ has been defined as ‘excellence in education’ (Peters and Waterman 1982); ‘value addition in education’ (Fiegenbaum 1952); ‘fitness for educational purpose’ (Juran & Gryna 1988); ‘conformance of education output to planned goals, specifications and requirements’ (Glimore 1974; Crossby 1979); ‘defect avoidance in education process’ (Crossby 1979) and ‘meeting or exceeding customers’ expectations of education’ (Parsuraman 1985).

Quality may mean different things to different people who, therefore, demand different quality outcomes and methods of assessing
quality. Harvey and Green (1993) describe quality as a ‘relative concept’. Quality is relative to the user of the term and the circumstances in which it is involved. It means different things to different people.

Green and Harvey (1993) have identified five different approaches to the viewing of quality in the field of higher education. According to them quality may be viewed:

- In terms of the exceptional (highest standards)
- In terms of consistency (without defects and getting it right the first time)
- As fitness for purpose
- As value for money, and
- As a transformative (transformation of the participants)

### 1.4 QUALITY-RELATED TERMINOLOGIES

Along with the concept of quality, education has adopted from industry a variety of terms like quality control, quality assessment, and quality audit and quality assurance. Unfortunately, in the literature on quality – issues in higher education these terms have often used with overlapping connotations, and sometimes the same term has been used with different meanings. It is, therefore, desirable to review the sense in which these terms are used.

**Quality Control** is the oldest of the quality concepts. It involves the detection and elimination of components or final products that are not of the visualized or expected standard. In education, however, it indicates an operational process concerned with the organisation, imparting and evaluation of teaching activities in order to ensure ‘fitness for purpose’, optimal utilization of resources and attainment of identified goals. In a white paper of the British government, presented in 1991, ‘quality control’ has been used to describe internal procedures for quality maintenance and enhancement (Green, 1994).

**Quality Assessment** is the evaluation of teaching and research quality in a specific subject (Calder, 1994). It is often used, in an extended sense, for the evaluation of an institution, or part of it, for overall performance using both internal and external procedures.

**Quality Audit** is concerned with processes and procedures. As defined in BS 7229 and IS 13999 it is the ‘systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives” (Bureau of Indian Standards, 1988; British Standards Institution, 1989). Quality audit is not concerned with the appropriateness of the objectives or with the results obtained. In the British white paper referred to earlier quality audit refers to external scrutiny of documents and procedures.
Quality Assurance has been defined by Green and Harvey (1993) as “the mechanisms and procedures designed to reassure the various ‘stakeholders’ in higher education that institutions accord a high priority to implementing policies designed to maintain and enhance institutional effectiveness”. Vroeijenstijin (1995) describes it as “systematic, structured and continuous attention to quality in terms of quality maintenance and quality improvement”. The International Network of Quality Assurance Agencies in Higher Education is of the view that “…. Quality assurance may relate to a programme, an institution or a whole higher education system. In each case quality is all of those attitudes, objects, actions and procedures which, through their existence and use, and together with quality control activities, ensure that appropriate academic standards are maintained and enhanced in and by each programme. Quality assurance extends to making the process and standards known to the educational community and public at large” (Lenn, 1993). Stated more simply quality assurance is the achievement of desired standards through application of agreed procedures (Calder, 1994). Quality assurance is a dynamic process involving continuous monitoring of performance and corrective actions when necessary. As Warren et-al (1994) succinctly put it “at a general conceptual level quality assurance in both higher and distance education refers to a continuous process that is proactive rather than reactive process, and that, though involving all actors and many facets of the institution, it is integrative”.

Quality Policy and Quality Management are two other terms that have gained currency. Quality Policy refers to “The overall policy intentions and direction of an Organisation as regards quality, as formally expressed by top management”, and Quality Management is “that aspect of the overall management function that determines and implements the quality policy” (Bureau of Indian Standards, 1988).

In today’s competitive environment to stand ahead and apart, the right course is to put a premium on quality. ‘Commit to quality’, needs to be the deriving orientation. The impetus for quality drive took its origin in Japan in the 1950s when it learnt a lot from Quality Gurus — Dr. J.M. Juran and Dr. W. Edward Deming, both American University Professors. Through ‘Kaizen’ i.e. quality, Japan captured global market in 1970s. America started its drive for quality in early 1980s. The month of October was declared by Ronald Reagan as ‘Quality Month’ in 1984. This declaration took the drive for quality in US to its pinnacle. In India, perhaps, the drive got off in the early 1990s.

Today quality is the watch word, for ‘quality is free of cost’ according to noted Quality Guru, Phil Crosby, Employees, and even unionized force accept quality orientation, for it ensures ‘job security’. Realizing this the automobile world leader Ford of the USA has long back coined the slogan, ‘Quality is job one’. Quality Has Value (QHV) is the slogan of Paul Revere, a US insurance business leader.
1.5 REASONS FOR MAINTAINING QUALITY

1. Competition: We are entering a new regime, where competition among educational institutions for students and funds will be highly significant. With globalization and the GATS (Global Agreement on Trade in Services), the educational environment will be seized by increased competition. In order to survive in such a situation, educational institutions need to worry about their quality.

2. Customer satisfaction: Students, parents or sponsoring agencies as customers of the educational institutions are now highly conscious of their rights or getting value for their money and time spent. They are now demanding good quality teaching and receiving employable skill sets, and thus we should constantly worry about the relevance of our courses and programmes to the needs of the labour market.

3. Maintaining standards: As educational institutions, we are always concerned about setting our own standard and maintaining it continuously year after year. In order to maintain the standard, we should consciously make efforts to improve quality of the educational transactions as well as the educational provisions and facilities.

4. Accountability: Every institution is accountable to its stakeholders in terms of the funds (public or private) used on it. Concern for quality will ensure accountability of the funds utilized and inform the stakeholders about taking appropriate decisions. Thus, quality can be considered as a monitoring mechanism.

5. Improve employee morale and motivation: Your concern for quality as an institution will improve the morale and motivation of the staff in performing their duties and responsibilities. If a quality system is in place, the internal processes would be systematic making every department complementing each others service domain and helping in developing internal customer satisfaction leading to high morale and motivation.

6. Credibility, prestige and status: If you are concerned about quality, continuously and not once in a while, it will bring in credibility to individuals and your institution because of consistency leading to prestige, status and brand value.

7. Image and visibility: Quality institutions have the capacity to attract better stakeholder support, like getting merited students from far and near, increased donations/ grants from philanthropists/ funding agencies and higher employer interest for easy placement of graduates.

1.6 PRE-REQUISITES FOR QUALITY

The quest for quality and achieving the same need requires certain pre-requisites. These are: top management commitment, employee training and involvement, right technology, apt materials and relevant process and methods and their improvements.
Top management commitment to make quality a guiding factor for all operations of the organisation is the foremost requisite of the quest for quality. Top management is the prime mover here. Its vision, mission, conviction, decision and support are vital for quality orientation and adherence. The organisational culture, climate, structure etc. may need a change to implement the quality system.

Employees are the hub of quality system. Human resources are the helm of any quality management system. They need to be educated on the concept and significance of quality first. Employees must be educated about the relevance and benefits of quality and the ills that would befall the organisation and its people of quality is not maintained in tune with time. The education process will convince them on the need for quality and there flows their commitment and involvement. And now they will come forward to learn how to maintain quality, how to improve the same and how to be at the forefront in quality. Training and development of employees can be introduced with almost nil resistance. Participative training through Quality circles is the right approach to achieve quality.

Technology is the third construct or substance of quality orientation. In a world of automation and robots, quality improvements are possible through the technology route. Fuel and energy efficient technology, break-down preventive technology, zero-defect technology, fast-phase and less cycle-time technology etc. are the order of the day. Besides Computer Aided Design (CAD), Computer Aided Management (CAM), artificial intelligence systems, economically sound design, and the technological scenario. The human error component is thus being marginalized by going for child proof systems, machines and equipment. Thus, quality quest is well achieved through technological advancement. Almost all aspects of quality can be addressed through technology route.

Materials make the product and measure up its performance. Product quality thus depends on materials used. There is an adage in Tamil meaning. Like the mother is the child and like the thread is the saree. The material used to produce the basic product, the component items, the outer case, the painting etc. would do a lot. Take the case of Maruthi Esteem the all-aluminium engine of the Eastern means reduced weights leading to more usable power, better acceleration and fuel efficiency.

Value analysis, value engineering, vendor-rating, variance limiting and the like will ensure adequate quality being achieved. Choice of component item suppliers is a very crucial factor. Today’s production system is modular. Several components produced not necessarily by one and same party, are assembled and marketed under a brand name. Product performance here depends on all the components and the weakest of the components wrecks the whole product, just like the strength of a chain depends on its weakest link. Hence the need for total quality and TQM.

Finally comes methods and process. The transformation of materials into products involves adoption of certain methods and process
tuned to technology and human skills. Given materials, machines and human skills, quality can be ensured through adopting right method and process of transformation. Process refers to the sequence and flow of activities performed. The sequence and schedule of activities need not be same for all time to come. Changes in tune with technology are advocated these days.

Business Process Reengineering focuses on just four approaches to improving process. These are: eliminate the process using zero-based systems analysis, outsource the process or perform inward an outsourced process, combine process and improve processes. Zero-based systems analysis is nothing but having a fresh look at organisation processes instead of being guided by past practices. In a world-wide network system, for instance, transmission of an indent to purchase certain items can be computer to computer (from the buyer’s indent making system to the supplier’s order processing system), cutting down lead time and hence buffer stock profusely. Process reengineering is not confined to shop-floor. Each function of an organisation involves one or other process of execution. And process reengineering is possible with respect to each of the functions. The aim is improving organisational effectiveness through quality and cost reduction.

Check Your Progress: 1
Note: a) Write your answers in the space given below.
   b) Compare your answers with those given at the end of the unit.

1. Write down any three approaches to the viewing of quality in the field of higher education.

1.7 LET US SUM UP

In this unit we have looked in to the Definition of Quality, understood the Quality Concept in Higher Education, the Quality-Related Terminologies, and analyzed the reasons for maintaining quality and pre-requisites for quality.

1.8 UNIT END EXERCISES

1. Define the following terminologies:
   (i) Quality,
   (ii) Quality assessment,
   (iii) Quality assurance
2. Explain the reasons for maintaining quality.
3. Discuss the pre-requisites for quality.
### 1.9 ANSWERS TO CHECK YOUR PROGRESS

- In terms of the exceptional (highest standards)
- As fitness for purpose
- As value for money.

### 1.10 SUGGESTED READING

1. Armond V. Feigerbaum, Total Quality Control, McGraw Hill.
2. Ron Collard, Total Quality, Jaico, Delhi.
UNIT 2 - NEEDS OF QUALITY EDUCATION

Structure
2.1 Introduction
2.2 Objectives
2.3 Need for Quality in Higher Education
2.4 Importance of Quality in Higher Education
2.5 Factors Influencing Quality in Education
2.6 Dimensions of Quality in higher Education
  2.6.1 Product Quality Dimensions
  2.6.2 Software Quality Dimensions
  2.6.3 Service Quality Dimensions in Higher Education
2.7 Impact of Autonomy, Accountability and Accreditation on Stake-Holders and Society
2.8 Let us sum up
2.9 Unit End Exercises
2.10 Answers to Check your Progress
2.11 Suggested Reading

2.1 INTRODUCTION

In the field of education, there is a tremendous explosion of knowledge, but we have not succeeded in uniformly meeting our needs for achieving world class standards. Quality education is possible when it aims at the full development of the learner – the mind, the heart and the ability to act, i.e. thinking, feeling and doing. However, in our system of higher education, one of the major problems is our narrow focus on knowledge, which is not necessarily integrated or up-to-date, and the exclusion of development of skills/attitudes and values in the learner. Another problem is the lack of stated mission for the institution, a vision of what it wishes to achieve, so that, all its activities and sub-systems, of teachers and students strive towards a common goal in this joint effort.

2.2 OBJECTIVES

After going through this unit, you should be able to
✓ Explain the need for quality in higher education.
✓ Understand the Importance of quality in higher education
✓ Analyze the Factors Influencing Quality in Education
✓ Analyze the dimensions of quality in higher education
Quality issues in Education

2.3 NEED FOR QUALITY IN HIGHER EDUCATION

Quality of education at higher levels is more important than mere quantitative expansion. It is often said that quality of education in the country is deteriorating with quantitative expansion. It is said that only about five per cent of the universities in India are maintaining anything like satisfactory academic standards. One of the evidences cited by critics in justification of their criticism is that those who are passing out of institutions and universities today are not able to express themselves clearly and correctly either in their own mother tongue or in English or in the language in which they study. Another evidence for supposing that quality of education in the country is deteriorating is that when compared to standards in advanced countries, Indian standards seem to be lower.

Some people however argue that there is actually no fall in standards and that in reality, today, the students of institutions and universities are acquiring far more knowledge and skills than their counterparts in the earlier generations. It is argued that the syllabus in all subjects is far heavier today than a few decades ago and that the depth of knowledge of today’s students is far more than those of the earlier decades.

This debate as to whether there is a real fall in educational standards in higher education will go on but it is not of much significance. The important issue relating to quality of education today is not whether it is better or worse than in the previous years but how quality of education is to be determined and how it has to be maintained. Determination or measuring of the quality of education is faced with a number of problems. The quality of products produced in a factory can be decided. Quality of consumer goods and capital goods can be measured as per standards laid down by those who are vested with the authority to decide the quality of those products. But quality of education imparted or received cannot be easily measured because determining the quality of a living organism is not so easy as determining the quality of an inanimate object.

2.4 IMPORTANCE OF QUALITY IN HIGHER EDUCATION

The World Conference on Higher Education 1998 pointed out importance of quality in higher education institutions and their programmes –

“Article 11: Qualitative evaluation”

(a) Quality in higher education is a multidimensional concept, which should embrace all its functions and activities; teaching and academic programmes, research and scholarship, staffing, students, buildings, facilities, equipment, services to the
community and the academic environment. Internal self-evaluation and external review, conducted openly by independent specialists, if possible with international expertise, are vital for enhancing quality. Independent national bodies should be established and comparative standards of quality, recognized at international level, should be defined. Due attention should be paid to specific institutional, national and regional contexts in order to take into account diversity and to avoid uniformity. Stakeholders should be an integral part of the institutional evaluation process.

(b) Quality also requires that higher education should be characterized by its international dimension: exchange of knowledge, interactive networking, mobility of teachers and students and international research projects, while taking into account the national cultural values and circumstances.

(c) To attain and sustain national, regional or international quality, certain components are particularly relevant, notably careful selection of staff and continuous staff development, in particular through the promotion of appropriate programmes for academic staff development, including teaching/learning methodology and mobility between countries, between higher education institutions, and between higher education institutions and the world of work, as well as student mobility within and between countries. The new information technologies are an important tool in this process, owing to their impact on the acquisition of knowledge and know-how.

In India, in pursuance of the stipulations made in the National Policy on Education 1986 and its Programme of Action document, the University Grants Commission (UGC), under section 12CCC of the UGC Act of 1956 (3), established the National Assessment and Accreditation Council (NAAC) on 16th September 1994 at Bangalore.

2.5 FACTORS INFLUENCING QUALITY IN EDUCATION

The quality of education of a student depends on various factors like the teaching to which he is exposed, the educational facilities and environment available in the institution of his study and his own temperament and approach to studies. So to determine the quality of education of a student, the factors mentioned above have to be considered.

Accreditation can be used as a tool to improve the quality of education in the country. It is important that fairly high academic standards are maintained in all institutions in the country. The quality of education in the institution depends to a great extent on three factors the quality of teaching, the infrastructural facilities available in the institution and the manner in which examinations are conducted.
If the quality of teaching is good, the academic standards of the students is bound to be high. As the Kothari Commission rightly observed, of all the factors which influence the quality of education, ‘the quality, competence and character’ of the teachers are the most significant.

The laboratory and library facilities available in the institution and the general atmosphere in the institution also determine the quality of education in the institution.

Conducting examinations in a strict and fair manner is also important to have good academic standards.

2.6 DIMENSIONS OF QUALITY IN HIGHER EDUCATION

Quality was originally developed in the manufacturing industry. However, the quality of higher education has become very important for its stakeholders such as students, staff, employers and funding agencies. The most commonly grouped dimensions of quality are product, software and service.

2.6.1 Product Quality Dimensions

Garvin (1987) proposed the following eight dimensions for quality that, as he stated, can define both product and service quality:

1) Performance. It is concerned with the primary operating characteristics of a product. For example, for a TV, the performance comprises of sound and picture quality. In higher education performance is the abilities expected of a graduate.

2) Features. Those characteristics that supplement the basic performance functions are called features. In higher education, flexibility of course offering could be a feature.

3) Reliability. It is the probability of a product working fault-free within a specified time period. In higher education, it can be considered as to what extent the knowledge gained is correct, and up-to-date.

4) Conformance. The extent to which a product meets the established specification/standard. For higher education, it can be defined as the extent of meeting the established educational standards and its own promises to the client.

5) Durability. The product’s assumed life to perform satisfactorily is durability. In higher education, it can be defined as the depth of learning.

6) Serviceability. It is concerned with the repair and field service of the product. In higher education it is concerned with handling of complaints from students, staff and industry. Some also emphasize the continuous updating of their alumni as evidenced by professionals like
the Chartered Accountants through their magazines, newsletters and continuing education to provide after training service.

7) Aesthetics. In the context of product, it is concerned with the design, looks, colour and presentation, and how the customer views it.

8) Perceived quality. This is yet again subjective like aesthetics and ‘customers’ opinion is more appropriate in service quality dimension. For a product too, through branding, the customer perceives a certain degree of confidence on quality.

9) Product dimensions of quality in higher education

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Definition in higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Primary knowledge/skills required for graduates</td>
</tr>
<tr>
<td>Features</td>
<td>Secondary-supplementary knowledge and skills</td>
</tr>
<tr>
<td>Reliability</td>
<td>The extent to which knowledge/skills learned is correct, accurate and up to date</td>
</tr>
<tr>
<td>Conformance</td>
<td>The degree to which an institutional programme/course meets established standards, plans and promises</td>
</tr>
<tr>
<td>Durability</td>
<td>Depth of learning</td>
</tr>
<tr>
<td>Serviceability</td>
<td>How well an institution handles customers’ complaints?</td>
</tr>
</tbody>
</table>

Source: Owlia and Aspinwall (1996)

2.6.2 Software Quality Dimensions

The characteristics of software as an intangible product are more consistent with higher education. The software quality dimensions widely used in software engineering are: correctness, reliability, efficiency, integrity, usability, maintainability, testability, expandability, portability, reusability and interoperability (Watts, 1987). Owlia and Aspinwall (1996) apply these quality dimensions to higher education, which are given below:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Definition in higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correctness</td>
<td>The extent to which a programme/course complies with the specified requirements</td>
</tr>
<tr>
<td>Reliability</td>
<td>The degree to which knowledge/skills learned is correct, accurate and up to date</td>
</tr>
<tr>
<td>Efficiency</td>
<td>The extent to which knowledge/skills learned is</td>
</tr>
</tbody>
</table>
Quality issues in Education

NOTES

<table>
<thead>
<tr>
<th>Quality in Education</th>
<th>Applicable to the future career of graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrity</td>
<td>The extent to which personal information is secure from unauthorized access</td>
</tr>
<tr>
<td>Usability</td>
<td>The ease of learning and the degree of communicativeness in the classroom</td>
</tr>
<tr>
<td>Maintainability</td>
<td>How well an institution handles customers’ complaints?</td>
</tr>
<tr>
<td>Testability</td>
<td>How fair examinations represent a subject of study?</td>
</tr>
<tr>
<td>Expandability,</td>
<td>Reusability and the degree to which knowledge/skills learned is applicable interoperability to other fields</td>
</tr>
<tr>
<td>Flexibility, Portability</td>
<td></td>
</tr>
</tbody>
</table>


2.6.3 Service Quality Dimensions in Higher Education

The service dimension of quality is probably more akin to the educational processes. We know that unlike physical goods, services are ephemeral to the extent that they can be consumed only as long as the activity or the process continues. Thus, there is inseparability of production and consumption. Thus, services can’t be stored and are perishable. The consumer is also an integral part of the service process. Thus, in higher education, this framework is more applicable as the teaching learning situations are more like a service. Parasuraman et al (1985) identified the following dimensions of service quality:

1) Reliability. The service is carried out in the way it is promised.
2) Responsiveness. The service is carried out promptly according to the needs of the customers.
3) Competence. The staff of the service provider has the knowledge and skills required for delivering the service in a proper way.
4) Access. It concerns the location, opening hours, etc.
5) Courtesy. How polite, friendly and respectful the employees are.
6) Communication. It is the process of keeping the customers informed in a language that they could understand and also listening to them.
7) Credibility. How trustworthy, believable and honest the service provider is.
8) Security. Freedom from danger, risks or doubt.
9) Understanding the customer. The effort of the service provider to understand the needs and wants of the individual customers.
10) Tangibles. Physical objects that are needed for carrying out the services such as facilities, equipment, etc.
Owlia and Aspinwall (1996) based on a review of service quality dimensions, present a comprehensive list with their interpretations for higher education as given below:

### Service Quality Dimensions in Higher Education

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Definition in higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>The degree to which education is correct, accurate and up to date. How well an institution keeps its promises? The degree of consistency in educational process.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness and readiness of staff to help students</td>
</tr>
<tr>
<td>Understanding</td>
<td>Understanding students and their needs</td>
</tr>
<tr>
<td>customers</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>The extent to which staff are available for guidance and advice</td>
</tr>
<tr>
<td>Competence</td>
<td>The theoretical and practical knowledge of staff as well as other presentation skills</td>
</tr>
<tr>
<td>Courtesy</td>
<td>Emotive and positive attitude towards students</td>
</tr>
<tr>
<td>Communication</td>
<td>How well lecturers and students communicate in the classroom?</td>
</tr>
<tr>
<td>Credibility</td>
<td>The degree of trustworthiness of the institution</td>
</tr>
<tr>
<td>Security</td>
<td>Confidentiality of information.</td>
</tr>
<tr>
<td>Tangible State</td>
<td>Sufficiency and availability of equipment and facilities</td>
</tr>
<tr>
<td>Performance</td>
<td>Primary knowledge/skills required for students</td>
</tr>
<tr>
<td>Completeness</td>
<td>Supplementary knowledge and skills, use of computer</td>
</tr>
<tr>
<td>Flexibility</td>
<td>The degree to which knowledge/skills learned is applicable to other fields.</td>
</tr>
<tr>
<td>Redress</td>
<td>How well an institution handles customers’ complaints and solves problems?</td>
</tr>
</tbody>
</table>

Source: Owlia and Aspinwall (1996)
2.7 IMPACT OF AUTONOMY, ACCOUNTABILITY AND ACCREDITATION ON STAKE-HOLDERS AND SOCIETY

The stakeholders are the institution heads, the teachers, the students, the parents, the sponsors of students, the government which pay for the teachers and others and the society.

Autonomy to institutions to devise their own curriculum, their own entrance examination system and criteria of admission, their mode of delivery of learning inputs, their system of assessment of learners and the teachers and such other autonomies help the stakeholders and society in different ways.

The institution-heads have freedom to upgrade, speed up, globalize, benchmark, standardize, quality control what they give to the students. The institution is free from the controlling clutches of its affiliating university which is not used to creativity, innovation, and speed of action and high benchmarks but to lethargy, red-tap, interventions and the like.

The teachers are bound to upscale their knowledge, go fast catching newer development in curricula, and put into practice their innate creativity and so on. They gain in the form of recognition of their superiority. They have say in evaluation system and that quality control can be ensured. The students in autonomous institutions gain because of the superior contents of the curriculum, extra-curricular activities and exposure to creativity and innovation of the system. The bright students really appreciate the exacting nature of environment in autonomous institutions. The parents are happy as their sons/daughters get good inputs, good education, good exposure and good training.

The government also gains in the sense that at least the autonomous institutions stand committed to deliver the latest dose of knowledge to the students. And it can concentrate streamlining those that are under the control of the Government. The society (industrialists, general public etc.) gains as the outputs of those autonomous institutions are of superior quality and that public money spend in them has turned into an investment instead going a watered capital.

Accountability is defined as “being the responsibility on the shoulder and judicious about the authority on the hand”. Accountability means to account for (i) actions and inactions; and (ii) achievements and downfalls. Accountability is remaining answerable to someone for one’s thoughts, words, deeds and results. In the educational system, students are expected to be accountable for their studies, teachers for their teaching and research, and educational system as a whole, for the quality of education. However, several well-known educationists have stated that students do not study and teachers do not teach. Of course, such a general statement would be doing injustice to many diligent students and devoted teachers. But the criticism cannot be simply brushed aside as totally unfounded. It becomes
necessary for the educationists to explore the causes. One is the phenomenal increase in the number of students and institutions. The number of institutions in the country has gone up to about 20 times and the number of students has gone up to nearly 30 times after independence. Despite efforts to halt the setting up of any additional substandard institution of higher education, a new institution is started every day in the country. The size of the students in a single classroom in some extreme cases has gone up to 300. No wonder, the relationship between the teacher and the student, which is the condition of accountability, is snapped. The teachers hardly take attendance and do not bother to ensure the presence of students in the class. Techniques like assignment and project which require a close supervision of the students by the teacher are almost conspicuous by their absence.

A more important reason for lack of accountability of students is the lack of understanding on their part of the basic purpose of education or of being a student. The overwhelming preoccupation of the students is with the passing of examinations, and in the case of brighter students, of attaining a high rank or grade. In such perception of students, the purpose of gaining knowledge for the sake of it or mastering the subject is at a discount. Students who do not study, are prepared to go to any extent to get the certificate of passing. They attend coaching classes which supply model questions and answers; they resort to unethical practices like smuggling in copying material in the examination hall and now they are even prepared to obtain fake certificates as evidence to having obtained the degree.

The coaching classes charge heavy fees. Students are prepared to pay such fees in the hope that they will be able to pass or get high marks. They are not prepared to tolerate even a moderate increase in fees charged by the institutions and universities, and protest against it. Perhaps they give little value to the education imparted by the institutions and universities.

The behavior of the teachers adds to the indifference of the students. Teachers are supposed to be constantly preoccupied with their subject of discipline. They are expected to be interested in their students to ensure that all of them progress – brilliant, middle level and even ordinary students. However, such has been the deterioration in the system of higher education that quite a few teachers have interest neither in their own subject nor in their students.

A system of performance evaluation of teachers is required, so that they could be held accountable for their academic work in respect of teaching, research, extension and corporate activities. However if teachers do not feel the need to report meticulously, leaving many entries blank, and if the performance appraisal reports are not evaluated, the whole raison d'être of the performance appraisal system disappears.
Obviously, a tightening of the performance appraisal procedure and relating it to career advancement would be very necessary. A teacher tends to think that once he is appointed, he is unremovable, and once he is appointed as a professor, he has reached the academic summit and that is the end of further responsibilities. If such is the situation, then the system of contractual appointments as in USA would well be in order. A teacher would know that his contract would not be renewed if he does not perform.

The traditional system of evaluation of students in universities is based on the supposition that for objective evaluation, the evaluator has to be other than the teacher. Recently a new system is introduced, as a part of educational reform, the American system of evaluation where the teacher is the evaluator. But the system does not always work here. Some teachers are not prepared to burden their students with too much studies or adopt rigorous standards of evaluation. They want to be popular and pass all the students with flying colours. Of course sometimes the same teachers would penalize a student who does not fall in line and demands more knowledge. It has been suggested that just as teachers evaluate the students, students should evaluate their teachers. Such a system of student evaluation exists in some universities in the US. Changes in the contents of syllabus, methods of teaching and techniques of evaluation can be suggested. But ultimately, it will depend on the attitudes of the students and the teachers.

It is a nature of creating a proper academic atmosphere, an atmosphere in which the quest for knowledge becomes the sole concern of the students and teachers and becomes a main motivating factor of their performance. To bring this about we have to constantly fight negative forces of cynicism, self-centeredness and the resultant academic politics, and the growing influence of trade unionism amongst teachers and staff to make the institutions of higher education what Dr. S. Radhakrishnan called “the inner sanctuaries” of the nation.

In the ultimate analysis, the educational institutions are accountable to the society for a high level academic performance. It should be the endeavor of all institutions to win laurels in all fields of knowledge and to provide true knowledge as a source of strength to the entire nation. This requires a total transformation in the scene of higher education. Through a process of liberalization, we are trying to expand the scope of pecuniary motivation in our national life. However, the institutions cannot just be market institutions selling knowledge on purely pecuniary considerations. Nor can the institutions rely on disciplinary proceedings though the conditions of service of teachers should and do provide for disciplinary action and incorporate “academic ethics”.

The disciplinary proceedings however justified, are perceived by the academic community as demoralizing; at the same time courts which were earlier reluctant to interfere in the internal disciplinary proceedings of an organization are now prone to give stays lasting for an indefinite period.
thereby making a mockery of the disciplinary proceedings. In any case academic institutions cannot be like a military academy nor like a government department where formal authority is the force of ensuring accountability. Academic institutions have to go beyond pecuniary or disciplinary process of ensuring accountability of the administration, teachers and students mutually to each other and collectively to the nation and society.

Accountability goes with autonomy. The autonomous institutions and others are accountable to every element, internal and external. The accountability structure or network is both bilateral and multilateral. Every stakeholder is accountable to other stakeholders for authority wielded over them, resources consumed and promises/ expectations made. The institution heads are accountable to the society to provide quality education, good quality of work-life to the teachers and good learning environment to the society. The teachers are accountable to impart value-added education to the wards and higher commitment to extension activities and research. The students are accountable to the institutions in upholding their traditions, fame and name, to the teachers in living up to the expectations by diligently carrying out academic responsibilities, to the prospective employers by acquiring skills of being employed, to the society to behave as responsible citizens and to the Government by giving better social return for the social cost incurred by the Government. More accountability rests on the student; because they are the cause and effect of the education system.

The Government stands accountable to all by providing necessary policy environment for orderly development of the educational system, by providing funds for the institutions etc. The parents are also accountable. They have to prevail upon their children to make good use of the facilities given, to imbibe value addition-characters and to serve the society wholeheartedly in whatever capacity they may act later.

Accreditation has similar impacts on the stakeholders and the society. Accreditation helps to know one’s strength and weaknesses, to focus on building strengths and doing away the weaknesses, to streamline organisational components, to concentrate on areas with potentials, to instill commitment and confidence in everyone concerned and to build one’s core competencies.

Check Your Progress: 2

Note: a) Write your answers in the space given below.

b) Compare your answers with those given at the end of the unit.
1. Name the most commonly grouped dimensions of quality.
2.8 LET US SUM UP

In higher education the quality movement was initiated in the eighties of the last century, gained momentum during the nineties and today, higher education, has become an integral component of all higher education systems. While in some countries it has just been introduced, in others it has reached a stage of maturity (Meade, 2001). For the latter to happen in any country it is necessary that the need for quality assurance be nationally recognized, quality-related policies introduced, monitoring agencies established and quality-assessment procedures standardized.

2.9 UNIT END EXERCISES

1. Bring out the need for maintaining quality in higher education.
2. What are the factors influencing quality?
3. What is accountability in education?
4. Discuss the impact of accountability and accreditation on stakeholders and society.

2.10 ANSWERS TO CHECK YOUR PROGRESS

1. They are product, software and service.

2.11 SUGGESTED READING

UNIT 3 – PERFORMANCE INDICATORS

Structure
3.1 Introduction
3.2 Objectives
3.3 Concept of performance Indicators
3.4 Types of performance Indicators
3.5 The Use of Performance Indicators
3.6 Performance indicators for Indian institutions
3.7 Performance indicators of NAAC
   3.7.1 Curricular Aspects
   3.7.2 Teaching-Learning and Evaluation
   3.7.3 Research, Consultancy and Extension
   3.7.4 Infrastructure and Learning Resources
   3.7.5 Student Support and Progression
   3.7.6 Organization and Management
   3.7.7 Healthy Practices
3.8 Let us sum up
3.9 Unit End Exercises
3.10 Answers to Check your Progress
3.11 Suggested Reading

3.1 INTRODUCTION

Quality Assurance in higher education calls for the development of dependable performance indicators and for the adoption of benchmarks that are acceptable to stakeholders nationally, and preferably, globally.

The criteria used for evaluating the work of an individual or institution, or for adjudging the effectiveness of a programme, are often referred to as ‘performance indicators’.

Performance Indicators (PI) in the institutional context are measurements for assessing the quantitative performance of a system. They may be used by the institutions to inform the beneficiaries about the extent to which their expectations may be fulfilled by the institutions. In its simplest form, the PI may be used to present the institutional profile to the public as a marketing or image building strategy. The accrediting agencies world over base their evaluation on a set of predetermined criteria or standards with reference to input, process, and output.
3.2 OBJECTIVES

After going through this unit, you should be able to
* Define the concept of performance Indicators
* Explain the types of performance Indicators
* Understand the use of Performance Indicators
* Analyze the Performance indicators for Indian institutions
* Understand the Performance indicators of NAAC

3.3 CONCEPT OF PERFORMANCE INDICATORS

The idea of performance indicators in higher education is borrowed from economics where the efficacy of a system or institution is related to its productivity in terms of efficiency and returns. As Ramsden (1991) puts it: “The idea of performance indicators derives from economic models of the education system as a process within a wider economic system which converts inputs (such as academics’ salaries) into outputs (such as research papers)”. They may, therefore, broadly be described as quantifiable variables that may be used as tools in decision-making.

In a survey undertaken by the Organisation for Economic Cooperation and Development (OECD) in the mid-1980s performance indicators are defined as “numerical value(s) used to measure something which is difficult to quantify (and) which can be derived in different ways. They provide measurement for assessing the quantitative and qualitative performance of systems” (Cuenin, 1987). Later the Morris Report (1990) improved upon this definition and stated that “Performance indicators are statistics, ratios, costs and other forms of information which illuminate or measure progress in achieving the mission and corresponding aims and objectives of the government (or agency) or of a university (or other institutions)”. Kells (1992) attempting to balance subjective and objective information proposes the following definition: “Performance indicators are factual or opinion information gathered from existing data bases or de novo, about the functioning of organisations or their constituent units and for various purposes (monitoring, decision support, comparing, evaluating, improving). They serve as signals to institutions or governments to explore the reasons for deviation from normative or expected levels of activity or achievement in relation to goals or standards”.

A Steering Committee set up by the Committee of Vice-Chancellors and Principals, to examine the efficiency and effectiveness of universities, in its report (the Jarratt Report, 1985) recommended that reliable and consistent performance indicators needed to be developed. It suggested that “a range of performance indicators should be developed covering both inputs and outputs and designed for use both within individual institutions and for making comparisons within institutions”.

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The concept of performance indicators is today accepted universally but for different reasons. In the United Kingdom it came as a response to market forces that demanded better products from universities. In Australia performance indicators were developed so that education institutions could respond more positively to government priorities. In the Netherlands quality assessment, through performance indicators, was used to impose fiscal responsiveness and discipline. And in the United States its use facilitated the securing of greater autonomy from state legislatures (Gaither et-al 1994).

Performance indicators, if they are to be used to measure the accountability of an academic institution, must comply with certain basic conditions. As emphasised by Sizer (1979), they must be, relevant, verifiable, free-from-bias, quantifiable, economically feasible and acceptable in the institution being evaluated. It may be added that the performance indicators must be capable of being upgraded and easily comprehensible. Further they must take into account the goals of the institution. Ball and Halwachi (1987) point out “the use of such indicators must be accompanied by a clear statement of goals, the relative importance of each goal and an indication of how each indicator measures the goal in question”.

A Working Group set up in the United Kingdom, jointly organised by the University Grants Commission and the Committee of Vice-Chancellors and Principals, recommended the development of a range of quantitative performance indicators that would be of use to the universities (Committee of Vice-Chancellors and Principals, 1988). The indicators should:

- relate to the objectives of the universities, especially teaching and research,
- be specific, quantifiable and standardised so as to enable comparisons within and between institutions
- be simple so as to aid understanding of activities
- be acceptable, credible and free of bias, and
- provide information about the activities and operations of the institution.

Subsequently, the Higher Education Funding Councils in the UK, jointly established in 1993, a Joint Performance Indicators Working Group to develop performance indicators that could be consistently and equitably interpreted. The report of this working group recommended institution indicators in the broad areas of teaching and learning, research, estate management and financial health; and also macro indicators related to student participation and output, research and financial aspects. (Committee of Vice-chancellors and Principals, 1995). The Working Group suggested that the performance indicators should be flexible,
problem-oriented and policy-relevant, and quantitative rather than qualitative. Further, they should utilise simple and reliable statistics that are constructed from information and data available from existing sources.

### 3.4 TYPES OF PERFORMANCE INDICATORS

The Jarratt Committee proposed the development of three types of performance indicators: internal, external and operational. **Internal indicators** are those that are based on information relating to the institution such as number of applications for admission, graduation rates, examination results, and attraction of research grants. **External indicators** are concerned with the external performance of the institution such as acceptability of graduates for employment, publications by staff, honors conferred on the faculty, and overall reputation as judged by external reviews. **Operational indicators** include variable such as student/staff ratio, unit cost of education, class sizes, and availability of library and computing facilities.

The UGC/ CVCP Working Group (Committee of Vice-Chancellors and Principals, 1988) identified three broad types of indicators:

- Input indicators that relate to the resources and factors employed to produce an institution’s outputs (financial resources, physical facilities, student and staff profiles).
- Process indicators that relate to the ways in which resources and factors are combined and used in order to produce an institution’s output (management of teaching, research and services), and
- Output indicators that describe the outputs produced by institutions (products of teaching, research and services).

To these may be added the Outcome Indicators of Kaufmann (1988) which are the effects of outputs in society (employment rates, life expectancy). The majority of indicators in use relate to inputs and processes and regrettably there are much fewer indicators based on outputs or outcomes.

Kells (1992) recognizes two types of indicators, namely those used by government and by institutions. Indicators for government include nationally defined measures of institutional responses to government goals and policies (equality of access, reservations). Indicators for institutions include institutional management indicators (workload, student enrolment, financial trends) and teaching, research and service indicators (examination results, publication and citation analysis, finished product quality). In keeping with this classification, in the United Kingdom, a distinction is made between **macro-performance** indicators that are indicators of the higher education system as a whole, and **institution performance** indicators that may be applied to individual institutions.
Chandrashekahara Rao (1997) has identified, specifically for the distance education system, three types of performance indicators, namely micro, macro and mega indicators. **Micro-indicators** are those that relate or to specific operations within a sub-system that have a bearing on overall performance. An example is the method of identification of courses and programmes in the process of learning materials development. **Macro-indicators** include those areas of performance that are of aggregate nature like entry-exit performance of students. **Mega-indicators** are those areas of performance in which an open university, as a special sub-system, interacts with the social system as a whole. Examples are the ratio of formal education programme to non-formal educational packages, and the nature and extent of the institute’s interface with industry.

### 3.5 THE USE OF PERFORMANCE INDICATORS

The basic purpose of a performance indicator obviously is to evaluate the performance of a system, institution or organisational structure. In the case of academic institutions it is to be used, internally, for enhancing the quality of teaching, research or social service provided by the institution. To the outsider it can provide important evidence regarding the health and functioning of the institution.

Sizer et-al (1992), while investigating government-institution relationship, have identified five core functions for performance indicators. These are:

- **Monitoring**: Registering developments in the system on the basis of information in existing databases.
- **Evaluation**: Commenting on the degree of goal achievement.
- **Dialogue**: Facilitating the improvement of mutual administrative relationships.
- **Rationalization**: Assisting in the accomplishment of a coherent policy-making process.
- **Resource Allocation**: Providing parameters for resource allocation models.

Within the framework of the above functions performance indicators may be used for various purposes, namely:

- As a measure of accountability.
- For comparison of performances of similar institutions, or of individuals performing similar functions.
- For improving effectiveness of management by providing information regarding a range of activities.
- For staff development by providing faculty with appropriate feedback designed to help them to improve performance.
- For creating awareness amongst students by providing information about systems, programmes and performances.
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3.6 PERFORMANCE INDICATORS FOR INDIAN INSTITUTIONS

Keeping in view the need to assess the quality of teaching and research in different educational institutions in India a shortlist of performance indicators that are most relevant in the Indian context is presented below. While drawing up this list the factors taken into account are cost, availability of information, general acceptability and comparability. These are:

(A) For Evaluation of Teaching:
- Implementation of academic calendar
- Examination results
- Curricula quality
- Student/Alumnus evaluation
- First destination of graduates

(B) For Evaluation of Research:
- Publications and citations
- Research projects
- Peer review
- Awards, honors and patents

(C) For Evaluation of Administration
- Faculty and staff profiles
- Unit costs – academic and administrative
- Generation of funds
- Utilization of grants
- Administrative efficiency

3.7 PERFORMANCE INDICATORS OF NAAC

In the methodology of NAAC’s accreditation, institutions are assessed under the following seven criteria; and for every one of these criteria, key aspects have been identified.

- Curricular Aspects
- Teaching-Learning and Evaluation
- Research, Consultancy and Extension
- Infrastructure and Learning Resources
3.7.1 Curricular aspects

This aspect requires information on whether and how the curriculum design of the institution offers diversity and flexibility to learners. It also seeks information on the practices of the institution in initiating and redesigning courses relevant to regional and national needs. The focus is on the following:

- Compatibility of programs with goals and objective
- Initiation reviews and redesign of programs
- Feedback on programs
- Interaction with academic peers and employers
- Program options

3.7.2 Teaching, learning and evaluation

This criterion deals with the efforts of the institution in providing appropriate teaching-learning experiences to the students. It also looks at the adequacy and competency of the faculty as well as the efficiency of the evaluation methodology followed by the institution. The focus is on the following:

- Judging the students’ knowledge and bridge/remedial courses
- Teaching-learning process
- Use of new technology in teaching and co-curricular activities
- Examination process
- Innovative evaluation methods
- Recruitment of faculty and faculty-development programs
- Evaluation of teaching, research and work satisfaction of faculty
- Monitoring and rewarding successful teaching innovation

3.7.3 Research, consultancy and extension

This part of the format seeks information on the activities of the institution with reference to research, consultancy and extension. It also looks into the facilitating aspects of the institution to promote the same and their outcome. The focus is on the following:

- Promotion and sustenance of research culture
- Freedom to publish in academic forums
- Benefits of consultancy
- Community needs and expectations
- Faculty participation
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Quality issues in Education

3.7.4 **Infrastructure and learning resources**

This aspect requires data on the adequacy and optimal use of facilities available to maintain quality of academic and general campus life. It also seeks information on how every constituent of the institution - students, teachers and staff, benefit from these facilities. The focus is on the following:

- Physical Facilities
- Maintenance
- Optimal use of Infrastructure
- Library and Computer Facilities
- Health Services and Sports/ Physical Education
- Hostel and Canteen

3.7.5 **Student support and progression**

The highlights of this criterion are the efforts of the institution to provide the necessary assistance for good student experience on campus and to facilitate their progression. It also seeks information on student and alumni profiles. The focus is on the following: Progression to employment and further study

- Pass and dropout rate
- Student feedback on various aspects
- Alumni association
- Financial aid to students
- Academic counselling
- Placement services

3.7.6 **Organization and management**

This criterion requires data on policies and practices of the institution in matters of planning, human resource development, recruitment, training, performance appraisal and financial management. The focus is on the following:

- Organisation structure
- Functions and powers of functionaries
- Human resource development
- Staff recruitment
- Training and performance appraisal
- Participation of students and staff in decision-making
- Use of new communication technologies
- Budgeting and auditing procedures
- Resource mobilization and effective utilization
- Financial Management
• Grievance Redressal mechanisms

3.7.7 Healthy practices

This criterion analyses information on innovative and unique practices that add to academic ambience. The focus is on the following:

• Credit system, examination reforms and modular curriculum
• Mission statement and goals
• Master plan for institutional growth
• Stakeholder feedback for functional improvement
• Innovations in management and communications
• Quality enhancement strategies
• Complementary systems like self-financing courses and need-based courses
• National / International linkages for teaching and research
• Industry linkages
• Chairs of excellence
• Teaching and research awards won by faculty

The existing procedure for accreditation using Performance Indicators involves two things – self-study report of the institution and peer judgment on the predetermined criteria or standards. The peer judgment with reference to the predetermined standards becomes the indicator of quality. In order to make this evaluation as objective as possible, NAAC has been adopting, along with others, an approach wherein Performance Indicators with reference to input, process and output have occupied the major part.

Check your progress: 3

Note: a) Write your answers in space given below.
   b) Compare your answers with those given at the end of the unit.

1. Write down the five core functions for performance indicators.

3.8 LET US SUM UP

In this unit we have looked in to the concept of performance Indicators, the types of performance Indicators, the use of Performance Indicators, the Performance indicators for Indian institutions and the Performance indicators of NAAC.
3.9 UNIT END EXERCISES

1. Trace the growth of development of performance indicators in higher education.
2. Briefly explain performance indicators evolved by NAAC.

3.10 ANSWERS TO CHECK YOUR PROGRESS


3.11 SUGGESTED READING


UNIT 4 - BENCHMARKING IN HIGHER EDUCATION

Structure

4.1 Introduction
4.2 Objectives
4.3 Benchmarking
4.4 Types of Benchmarking
4.5 Benefits of Benchmarking
4.6 Methodologies used in Benchmarking
4.7 Benchmarking Process
4.8 Benchmarking in Libraries – An illustration
4.9 Let us sum up
4.10 Unit End Exercises
4.11 Answers to Check your Progress
4.12 Suggested Reading

4.1 INTRODUCTION

Quality Assurance in higher education calls for the adoption of benchmarks that are acceptable to stakeholders nationally, and preferably, globally. Benchmarking is not simply the compilation of information on an organization and comparing it against standards or norms. It is a fairly complicated exercise and involves, first the examination and understanding of the internal work procedures of an organization or institution, next the searching for ‘best practices’ in other similar institutions, and finally the adaptation of these practices for quality improvement.

4.2 OBJECTIVES

After going through this unit, you should be able to

* Discuss the benchmarking in higher education
* Explain the types of Types of Benchmarking
* Understand the Benefits of Benchmarking
* Analyze the Methodologies used in Benchmarking
* Understand the Benchmarking Process
* Discuss the Benchmarking in Libraries
BENCHMARKING

Benchmarking, as it is known today, was developed in the USA in the seventies. However, the underlying concept has been in existence for considerably longer. The studies on the scientific methods of work organisation performed by Frederick Taylor in the latter part of the nineteenth century represent an early use of the benchmarking concept.

Benchmarking was originally developed by companies operating in an industrial environment. It has, therefore, been applied most widely at the level of the business enterprise. In recent years, organisations such as government agencies, hospitals, universities etc., have also discovered the value of benchmarking and are applying it to improve their processes and systems. In addition, industry associations now increasingly use the tool to improve sector specific processes. Most recently, public authorities have begun to explore the use of benchmarking as a tool for improving policy implementation processes, by focusing on the framework conditions, which underlie the business environment and the economy more generally.

Benchmarking is a tool for improving performance by learning from best practices and understanding the processes by which they are achieved. It involves looking outward to examine how others achieve their performance levels and to understand the processes they use. In this way benchmarking helps explain the process behind excellent performance. Application of benchmarking involves four basic steps. Firstly, understand in detail the processes. Next, analyse the processes of others. Then, compare the performance with that of others analysed. Finally, implement the steps necessary to close the performance gap.

Definition

Benchmarking is a management technique to improve business performance. It is used to compare performance between different organisations or different units within a single organisation undertaking similar processes. It is an ongoing method of measuring and improving products, services and practices against the best that can be identified in any institution anywhere.

There are many similar definitions of benchmarking, most of which fit neatly on two groups – those that include implementation of the findings and those that do not. Jane Foot’s definition is widely cited in library literature, yet it’s a definition that does not incorporate the implementation of the identified best practices.

The American Productivity and Quality Centre (1993) defined benchmarking as: “The process of identifying, understanding and adapting outstanding practices and processes from organisations anywhere in the world to help an organisation to take action to improve its performance”.

Fielden (1997) described benchmarking as “a self-improvement tool for organisations which allows them to compare themselves with
others, to identify their comparative strengths and weaknesses, and learn how to improve”.

Bolton (2000) points out that in higher education benchmarking is used in at least three contexts. He writes: “…. benchmarking is being used – confusingly – to refer to comparisons with levels of performance which are respectively world class, successful and at the threshold that is the minimum acceptable”.

Eper (1999), “Benchmarking is a humbling experience. It requires us to look deeply at ourselves, to recognize our weaknesses, and to look elsewhere for examples of how to do things better”.

Benchmarking is above all a practical tool. It is constantly evolving in the light of ever-increasing experience, applying it to different organizational and cultural settings.

### 4.4 TYPES OF BENCHMARKING

In higher education benchmarking has taken up different forms. Alstete (1995) has identified four types:

1. **Internal Benchmarking** in which comparison is made between different units (departments, faculties, institutions) within the same university, without comparing with external standards, principally to identify and emulate good/ best practices.

2. **External Competitive Benchmarking** where a comparison of performance in key area is made on the basis of information from other institution that are seen as competitors.

3. **External Collaborative Benchmarking** in which comparisons are made with larger groups of institutions which are not regarded as competitors, and using a methodology that is relatively open and collaborative.

4. **External Trans-industry (best-in-class) Benchmarking** which involves looking across multiple industries/ institutions in search of new and innovative practices.

### 4.5 BENEFITS OF BENCHMARKING

Benchmarking offers a number of benefits. These include:

- Improved customer satisfaction
- Increased productivity
- Reduced operating costs
- Identifying and streamlining work process
- Developing meaningful measurements and quantitative terms
- More efficient and effective processes
- Improved performance and customer service
- Increased competitiveness
• Increased utilization of resources
• Improved levels of management support
• Better and faster decision-making
• More efficient and effective marketing
• Accelerated change and facilitated change management
• Improved professional relationship
• Proof of the unit/division’s value to the organization

4.6 METHODOLOGIES USED IN BENCHMARKING

Schofield (1998) has enumerated five methodologies used in benchmarking: These are:

➢ **Benchmarking by Ideal-type Standards** in which a model, based on idealized best practices, is created and institutions are assessed on the basis of the extent to which they fit the model.

➢ **Activity-based benchmarking** in which a selected number of typical or representative activities are analyzed and compared with similar activities in other institutions.

➢ **Vertical benchmarking** in which the cost, workloads, productivity in a defined functional area (example the work of student admission department) are quantified.

➢ **Horizontal benchmarking** in which the cost, workloads, productivity and performance of a single process that cuts across one or more functional area (example all aspects of student admission irrespective of location) are analyzed.

➢ **Benchmarking through Comparative Performance Indicators** (example league tables) undertaken by outside interests that influence public opinions and judgment.

Epper (1999) has drawn attention to the **Consortium Benchmarking Methodology** developed by the American Productivity and Quality Center in which a group of institutions, sharing a common interest, work together with corporate sponsors to identify best practices. The decisions are based on collective inputs of institutions, sponsors, a subject expert and APQC facilitators.

4.7 BENCHMARKING PROCESS

Benchmarking consists of a logical sequence of stages, which an organization goes through to achieve continuous improvement in its key processes. It is a process that takes time. Depending on the subject and the information available, a benchmarking exercise might run over three months up to one year. It should be repeated after a certain time period, and the impact has to be monitored.

There are many books, articles and papers about the development of benchmarking process, and the most consistent message appears to be that
the process must be rigorous and well planned. Henczel suggested the following stages for developing a benchmark process.

- Plan what you are going to benchmark, who, with whom and for what purpose. As with any other project, planning is the most critical stage because inadequate planning and preparation can cause a project to fail. Plan your resource allocation (who will do what, how and who will pay for it) and decide which process will be benchmarked and why.

- Define the process and identify all the inputs to the process, the outputs and the customers. Define the boundaries of the process.

- Flowchart the process and include inputs, activities, indicators, decisions and outputs.

- Identify problems in the process and their possible causes. Use the expertise of the staff who actually perform the activities, as they have the most in depth understanding of related issues.

- Develop the metrics (how one will measure) and identify significant qualitative data that is important of the process.

- Collect data, measure the process.

- Compare collected data with benchmark partner.

- Identify areas for improvement.

- Formulate recommendations and an implementation plan.

- Implement improvements.

Choosing what to benchmark can be as important, if not more so, than choosing a benchmarking process or partner, because it will impact how useful the results are to the organisation. A useful list has been developed by Catherine Cassell, Sara Nadin and Melanie Older Gray who suggested that the processes chosen for benchmarking must be:

- Related to critical success factors for success
- Processes that are currently causing trouble
- Processes that are important to the customers and which are not performing up to expectations.
- The areas where the competitive pressures are impacting the most (e.g. price, flexibility, products).
- Processes that have the greatest potential for differentiating the competition; and
- Processes that are not in transition.

### 4.7.1 Tips for Successful Benchmarking

There are some tips for successful benchmarking such as:

- Aligning benchmarking projects with strategic objectives.
- Following a rigorous process – planning, analysis, implementation and review.
- Benchmarking the process and not just the outputs.
- Choosing an optimal benchmarking partner.
- Assuring to implement the changes required.
- Understanding the organisation and its culture.

4.8 BENCHMARKING IN LIBRARIES – AN ILLUSTRATION

Libraries have traditionally used external comparative benchmarking studies to measure themselves against others in order to justify their existence or prove their value and support their case for maintaining existing levels of staffing or funding. These studies were invariably based on statistics gathered and shared for the purposes of measuring how they rank with other libraries. One of the primary aims of a librarian is to ensure the offered service which contributes significantly to the success of the organisation and is as good as it can be. To do this, a librarian must utilise internal and external benchmarking processes to measure performance and identify possible areas of improvement.

Benchmarking requires libraries to examine their work processes and measure their productivity against that of other libraries. In monitoring other libraries, they can enhance their own performance by adopting, or adapting, the competitor’s best practices. Libraries are becoming increasingly accountable and are assuming a more business-like model. Increasingly the three E’s – Effectiveness, Efficiency and Economy – are addressed. Benchmarking is an excellent tool for librarians to determine how effective, efficient and economical their library operation rates.

The goal of benchmarking is to increase library’s performance by:
- Identifying libraries with best practices as partners.
- Measuring and comparing a selected work process against partner libraries.
- Conducting an interview with the library with the most efficient and effective work process; and
- Adopting, or adapting, partner’s best practices in the library.

Since best practices are always evolving, benchmarking is a continuous process. As a Total Quality Management tool, it requires librarians to focus their efforts on improving the work processes that impact the delivery of library products and services that are important to the customers. Benchmarking gives a tool to librarians to show the value of their library to the management in numerical terms. It proves to librarian’s upper management, administration or library board as a proactive librarian devoted to total quality. Librarians will impress them with realistic, quantifiable goals based on superior library practices.
In addition, a benchmarking study can be used to prevent a budget cut or library outsourcing. Benchmarking helps librarians to increase their performance and improve its work processes. The end result of benchmarking is reduction of costs, improved customer service and increased system efficiencies. These improvements enhance librarian’s reputation in their organisation or community. This Total Quality Management Tool helps librarians to attract new customers while retaining the old ones.

Librarians can use internal and external benchmarking to improve their process and prove their ‘value’ to their organisations. The key to benchmarking is to see what is being done differently and to have the ability to assess the value of those differences to the library.

**Internal Benchmarking**

With this method, librarians benchmark their library against others in their organisation or library system. Benchmarking this way involves the following steps:

- Conduct a preliminary benchmarking analysis including determination of the needs of management, patrons and library staff.
- Develop benchmarking metrics (measures)
- Identify internal benchmarking partners
- Collect and analyze the benchmarking data
- Present results to management.

With this benchmarking process, librarians do not have to leave their organisation or system to find partners. Sister libraries will be more willing to share their information than libraries from other organisations. For those libraries in the private sector librarians don’t risk releasing their organization’s confidential information to their competitors. Benchmarking with the sister libraries promotes professional cooperation and building within the closed library system. Despite these many benefits, there are some disadvantages. One is that benchmarking takes time. A typical internal study may last up to four months. Another disadvantage of internal benchmarking is librarian’s limited exposure to the profession’s best practices.

**External Benchmarking**

This procedure is like internal benchmarking with the additional steps of identifying and contacting outside partners. External benchmarking allows librarians to witness, firsthand, the work processes of other libraries. With this broader perspective, librarians will have greater ability to identify and implement the profession’s best library practices. Library staff will work as a team and build valuable professional relationships with librarians at other organisations.
Some difficulties with external benchmarking may be; precise time requirement, partner identification and confidentiality. External benchmarking requires a considerable time. Planning, training and data collection are more extensive than internal benchmarking. The complete study can take six to 12 months. There are many libraries; it may be difficult to find the right library partners for benchmarking study. To overcome this, librarians may use the classified section of the library publications to advertise for specific types of partners.

Benchmarking is a total quality tool that requires librarians to look closely at how other librarians accomplish selected work; it can be considered a kind of friendly competitive intelligence used to increase library’s performance and customer service. Best library practices are always evolving; benchmarking is not a one-time activity, but a continuous process. In a nutshell, benchmarking is a four step activity where:

- Librarians measure their target library process that needs improving.
- Other (partners) libraries measure the same library process in their libraries.
- Librarians and their partners compare the measures and decide which library is the highest performer or best practiced.
- Librarians adopt or adapt partner’s best practice.

Unfortunately, benchmarking is not quite as easy as it sounds. It takes time to conduct a study that a librarian can accomplish a benchmarking study, but a team works towards this end is definitely better. Of course the size of the library staff dictates the level of involvement, but the rallying cry for selecting a team should be the workload. Librarians can definitely use benchmarking to improve their library operations and services.

### Check your progress: 4

Note: a) Write your answers in space given below.

b) Compare your answers with those given at the end of the unit.

1. List out the four types of benchmarking.
those prevailing in the better (if not first-rate) institutions. For this carefully chosen performance indicators need to be used and benchmarking resorted to.

4.10 UNIT END EXERCISES

1. What is benchmarking? What are its benefits?
2. Discuss the methodologies and procedure of benchmarking.
3. Explain benchmarking in libraries with illustration.

4.11 ANSWERS TO CHECK YOUR PROGRESS

Internal Benchmarking, External Competitive Benchmarking, External Collaborative Benchmarking and External Trans-industry (best-in-class) Benchmarking.

4.12 SUGGESTED READING

Assessment and Accreditation (AA) as an External Quality Assurance (EQA) mechanism for higher education has emerged as the most widely accepted and adopted methodology throughout the world during the past decade. It is the considered option, evolving out of the plethora of traditional mechanisms such as inspection, control, affiliation and recognition. These regulatory methods are internal, non-comparable with other institutions, and fragmentary in nature. With the tremendous impact of globalisation in all aspects of social life including education, imparting higher education of nationally comparable and internally acceptable standards has become essential and urgent. This perception has resulted in the worldwide acceptance of External Quality Assurance to ensure the quality of education and to make the system more responsive to the demand for accountability. In India promoting quality in education has been the focus of almost all the Committees constituted at different stages of development of our higher education system. Among the various national consultations, discussions and recommendation that gave a direction and focus to our developmental strategies after independence, the National Policies on Education (NPE) 1968 and 1986, and the Constitutional amendment of 1976 have played a major role. The NPE –
1968 marked a significant step by laying stress on the need for a radical reconstruction of education system, to improve its quality at all stages.

### 5.2 OBJECTIVES

After going through this unit, you should be able to

- Define quality assessment and accreditation.
- Discuss Types of Accreditation Systems
- Explain the Accreditation Procedure
- Understand the Accreditation Agencies in India

### 5.3 ASSESSMENT

Assessment is one of the most important functions in higher education. It is usually confined to the examinations conducted at regular intervals. Universities seem to be pre-occupied with examinations most of the time, from preparations to conduct them to announcing the results. Society, industry, business and commerce attach a great deal of significance to the results. These results in the form of ranks, classes, marks, grades etc. Have a predominant influence on the opportunities available to students for further education or employment. It is therefore very necessary that teachers and examiners devote utmost care in assigning accurate, and reliable measures to the educational achievement of the students.

Although the types of questions and the format of an examination give no major indication of the abilities tested, there are specific advantages and disadvantages of each type. It is well to remember that the quality of an examination is dependent more on the quality of the questions of whatever type than on the choice of particular types of questions.

It is possible to classify all written (or paper and pencil) examination questions into three major types: (i) essay type; (ii) mathematical problem type; and (iii) objective type. In an objective type test, the examinee usually has a definite task, and the reasons for awarding or withholding credit are explicit. In the present context, objectivity is related to the extent to which experts agree on the correct answers to a question, and to the extent to which evaluation can be independently verified by other competent examiners.

Oral Examinations: These essentially involve face-to-face interaction between the examinee and one or more examiners. It provides an opportunity for the examiners to probe and assess the depth of understanding of the examinees. Employment interviews are all of this type. Cheating and bluffing are absent from this type of test. Some experts feel that by expecting the examinee to be able to think on his feet, i.e. think effectively under stress, it inflicts an abnormal set of test conditions on the examinee. Oral examinations must last long enough (at least 30 minutes) to be reliable. It is also important to choose the
examiners carefully; they must be mature and constructive, and capable of exercising judgment.

Marking is at least as important as the preparation and use of tests, and is subject to even greater criticism. Marks are the measurements of educational achievement. They should reflect how well the students have learned what they are taught. They are used to report the achievement of students to prospective employers and future teachers, and consequently provide an important means of stimulating, directing and rewarding the educational efforts of students. In order to do this, marks must be valid measures. A marking system is essentially a system of communication. To the extent that marks have the same meaning for all users, they serve the purpose of communication meaningfully and precisely.

Across the world quality assessment is done in the following ways:

- Self evaluation;
- Peer review by a panel of experts, usually including at least some external panel members and one or more site visits;
- Analysis of statistical information and/or use of performance indicators or the best practices benchmarking;
- Surveys of students, graduates, employers, professional bodies;
- Testing the knowledge, skills and competencies of students (Harman, 1998).

### 5.4 QUALITY ACCREDITATION

Accreditation, as commonly understood, is the recognition accorded to an institution that meets standards, or satisfies criteria, laid down by a competent agency, association or organization. Its essential purpose is to recognize, ensure and promote quality in education. It was devised in the United States nearly ninety years ago, and developed in that country into a unique mechanism for self-regulation of institutions and universities.

Accreditation is today accepted, the world over, as being the most effective means of quality assurance in higher education. Definitions of accreditation have generally emphasized the role of external agencies and of external evaluation. Thus, according to Zook and Haggerty (1936), accreditation is “the recognition accorded to an educational institution … by some agency or organization which sets up standards or requirements that must be complied with in order to secure approval”. Selden (1960) describes it as “the process whereby an organization or agency recognizes a institution or university or program of study as having met certain predetermined qualifications and standards”. And the U.S. Department of Health, Education and Welfare (1968) considers it to be “the voluntary process whereby an agency or association grants public recognition to a school, institution, university or specialized educational standards, as determined through initial and periodic evaluations”.

With the process of globalisation having set in, accreditation has acquired a new dimension. International cooperation in the field of
education is increasing and soon it may be a common feature for a student to undertake courses, in different universities, in different countries. For the purpose of giving equivalence to degrees and diplomas, and for transfer of credits, internationally accepted standards will have to be evolved.

In terms of a global perspective accreditation has basically three main purposes. First, to formulate educational norms, conduct assessments and recognize institutions that come up to certain minimum standards; second, to assure quality and help improve standards through self-public and prospective employers informed of the quality of education being imparted by educational institutions.

The accreditation system provides useful service not only to the students and the public but also to the institutions themselves. To the student it provides a certification that the institution or programme being considered by him has been evaluated and found satisfactory; to the public, including potential employers, it gives the assurance that the institution under review is performing in conformity with public expectations; and for the institution concerned, besides enhancing its reputation and strengthening its case for financial support, it provides a stimulus for self-evaluation and self-improvement. More significantly, accreditation has generated, amongst institutions and systems, a healthy competition for providing quality education.

### 5.5 TYPES OF ACCREDITATION SYSTEMS

Accreditation systems (and bodies) are of two main types – institutional and specialised. Institutional accreditation is conducted by national and regional accreditation agencies and it looks at the institution as a total operating unit. It focuses attention on the general characteristics of the institute; its objectives, infrastructure, faculty and resources. Of major concern are questions of programme integrity, administrative and academic control, quality assurance, availability of resources and supervisory accountability (Lenn, 1987). Institutional accreditation bodies generally promote improvement by encouraging self-evaluation, identifying areas of weakness, providing advice through visiting teams and conducting periodic reviews.

Specialised (or professional) accreditation relates to specific, profession-related programmes and is also referred to as programme accreditation. The accreditation bodies are often associations or councils of professions like medicine or law or engineering. The principal objective is to ensure that the quality of education and training meets the minimum requirements of the profession. The accreditation requirements are clearly defined and emphasize the infrastructure, the facilities and the personnel required for satisfactory professional preparation. Evaluation is invariably external and conducted by visiting teams comprising of members of the profession. The visiting team may ensure standards by prescribing additional accreditation requirements and advising on other matters.
It is generally accepted that accreditation should be a voluntary process and that no institution should be legally required to be accredited. In the United States there is a strong tradition of voluntary accreditation and all respected institutions of higher education have voluntarily obtained accreditation, it being accepted as an indicator of assured quality and integrity of institutional operations (Wolff, 1993). The voluntary nature of activities generally encourages innovation and experimentation, and provides alternatives to government actions. It is accepted as a matter of principle that accreditation should be sought rather than be forced upon an institution.

5.6 ACCREDITATION PROCEDURE

The procedure of accreditation is essentially a procedure of quality assessment and can be both complex and difficult. It raises some basic questions like:

- Can quality of teaching and research quantified?
- Is it possible to formulate a set of criteria and standards of quality of education?
- Can external evaluators really understand the ethos of an institution? or even
- Can peers be trusted?

Assuming that the answers are positive it will be necessary to:

Firstly, identify the domain of evaluation. This could be an institution, or one of its units (e.g. a Department), or an activity (teaching or research) undertaken by the institution or unit.

Second, specify the criteria (e.g. examination results, research output or unit cost) to be used in the process of assessment; and

Third, define for each criterion standards indicating both minimum acceptability and desirability.

The accreditation procedure clearly requires both internal and external actions. The internal action is basically the preparation of documents and other material detailing facts that substantiate the claim that minimum conditions required for accreditation have been fulfilled, and that the institution is working in accordance with its objectives. The external action is an on-site review, by peers from outside the institution, of the performance of the institution or the effectiveness of a programme. The final decision on accreditation is taken by the accreditation agency after reviewing all information and reports. The accrediting body usually examines the objectives of the institution, its plans, organization structure, programmes of teaching and research, faculty, student facilities and support services, and special activities. After accreditation is granted the institutions are revisited and re-evaluated periodically to ensure that minimum standards are maintained.
5.7 ACCREDITING AGENCIES IN INDIA

During the past two decades there have been discussions in India regarding the formulation and functioning of an appropriate mechanism of accreditation. The ‘Programme of Action’ related to ‘the National Policy on Education, 1986’ called for the development of “a mechanism for accreditation and assessment for maintaining and raising the quality of institutions of higher education”. (Government of India, 1986). A National Assessment and Accreditation Council (NAAC) was established in 1994, with headquarters at Bangalore and it presently undertakes institutional evaluation, though there is also a provision for departmental evaluation. The principal objectives of this Council are to:

- Grade institutions of higher education and their programs
- Stimulate the academic environment in these institutions
- Help the institutions in realizing their academic objectives, and
- Promote changes, innovations and reforms necessary for the above purposes, and encourage innovations, self-evaluation and accountability in higher education.

In the case of professional education the establishment and recognition of institutions is presently regulated by different professional associations including the All India Council for Technical Education (AICTE), the Medical Council of India (MCI), Indian Nursing Council (INC), Dental Council of India (DCI), Pharmacy Council of India (PCI), Council of Architecture, Bar Council of India (BCI) and Distance Education Council (DEC). However, these do not undertake accreditation. The All India Council for Technical Education (AICTE) became a statutory body in 1987 and was assigned the responsibility of setting up a National Board of Accreditation (NBA) for periodic evaluation of programs of institutions under it. The NBA was established in October, 1994 and it undertakes programme accreditation.

At NAAC, the process of assessment and accreditation is undertaken in three stages. First, the preparation of a self-study report by the institution undergoing assessment, second, the validation of the report through a peer-team visit, and third, a review of the peer team’s evaluation, and the final decision regarding accreditation by NAAC.

NAAC follows a two-tier assessment system. At Level-1, the institution is first classified as ‘Accredited’ or ‘Not-Accredited’. At Level-2, the accredited institutions are graded into five categories, improving quality being indicated by an increasing number of stars as superscript to the letter A (indicating accredited). Thus A* indicates the threshold level of quality and A***** the best quality.

For the purpose of grading, seven parameters are considered. These are:

1) Curricula Aspects

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2) Teaching-Learning and Evaluation
3) Research, Consultancy and Extension
4) Infrastructure and Learning Resources
5) Student Support and Progression
6) Organization and Management
7) Healthy Practices

For the three types of institutions, namely institutions, universities and autonomous institutions, different weightages have been assigned to each of these parameters. From parameter-wise judgment of the peer team, and after taking into consideration the assigned weightages, a composite Institutional Score (IS) is calculated. The is then used for grading the institution on a five-point scale (A***** the highest and A* the lowest). Till the end of December 2000, NAAC has assessed 22 universities and 123 institutions.

The procedure followed by NBA is essentially similar to that at NAAC and involves submission of information and data on a proforma provided by NBA, visit of peer-team and consideration of its report, first by a sectorial committee and then by NBA. The decision is finally reported to the AICTE. The assessment is based on the following criteria:

- Mission, Goals and Organization
- Financial and Physical Resources and their utilisation
- Human Resources – Faculty, Staff and Students
- Teaching-learning Processes
- Supplementary Processes
- Industry-Institution Interaction; and
- Research and Development

The assessment is on a four-point scale – A (Excellent/ Very Good), B (Good), C (Satisfactory) and NA (Not Accredited). In case of both NAAC and NBA accreditation is valid for five years.

Accreditation in India is in its infancy. The implementation of this laudable concept is being examined. Hopefully, mid-term corrections will be made.

Check your progress: 5
Note: a) Write your answers in the space given below
b) Compare your answers with those given at the end

1. What are of two main types Accreditation systems?
5.8 LET US SUM UP

In this unit we have discussed about the Definition of quality assessment and accreditation, the types of Accreditation Systems, Explained the Accreditation Procedure and Understood the Accreditation Agencies in India.

5.9 UNIT END EXERCISES

1. What do you understand by quality assessment and accreditation?
2. Explain various accreditation agencies in India.

5.10 ANSWERS TO CHECK YOUR PROGRESS

Institutional and specialized.

5.11 SUGGESTED READING


UNIT 6 - ACCREDITATION BY NAAC

Structure
6.1 Introduction
6.2 Objectives
6.3 Existing Practices of Assessment and Accreditation by NAAC
6.4 New Methodology for NAAC Accreditation
  6.4.1 General Eligibility Criteria for Assessment and Accreditation by NAAC
6.5 Institutional eligibility for quality assessment (IEQA)
  6.5.1 First-step of Institutional Eligibility for Quality Assessment
  6.5.2 Methodology for Identifying Institutions for IEQA
  6.5.3 Procedure for Seeking IEQA Status
6.6 New initiatives by NAAC for accreditation
6.7 New grading pattern
6.8 Re-accreditation process
  6.8.1 Re-Accreditation: Not for Compliance but for Continuous Improvement
6.9 Let us sum up
6.10 Unit end exercises
6.11 Answers to check your progress
6.12 Suggested Reading

6.1 INTRODUCTION

The growing concern for the quality of education at all the levels brought in the compulsion to make the constitutional amendment of 1976, to bring education into the Concurrent List so that the federal government can have a meaningful role to ensure quality of education. This important amendment required the sharing of responsibility of maintaining the standards of education by the Union Government and the States. Appreciating the importance of a quality assuring mechanism, both NPE and POA – 1986 recommended the establishment of a National Accreditation body. On the basis of this recommendation, National Assessment and Accreditation Council (NAAC) was established by the UGC as an autonomous body, under section 12-CCC of UGC Act 1956 registered under Karnataka Societies Registration Rules of 1961 at Bangalore on September 16, 1994. The objective of NAAC as envisaged in the Memorandum of Association (MoU) of 2000 is to assess and accredit institutions of higher learning in India, universities and institutions or one or more of their units, i.e. departments, schools, institutions,
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6.2 OBJECTIVES

After going through this unit, you should be able to

- Discuss the Existing practices of assessment and accreditation by NAAC
- Discuss the methodology of Re-accreditation process.
- Explain the Institutional eligibility for quality assessment (IEQA)
- Understand the New initiatives by NAAC for accreditation
- Discuss the New grading pattern and Re-accreditation process

6.3 EXISTING PRACTICES OF ASSESSMENT AND ACCREDITATION BY NAAC

An analysis of the current practices of the national accreditating agencies of the different countries reveals a great deal of diversity. They vary in structure and function. Variations could be seen in their methodology and also outcome. In spite of the variance, world over, the process of EQA is a combination of the self-study report of the institution and peer review. In line with the international trend, NAAC follows the following three stages of Assessment and Accreditation:

(i) Preparation and submission of self-study report by the unit of assessment
(ii) On-site visit of the peer team for validation of the report
(iii) Final decision by the Executive Council of NAAC.

The first and the most important step in the process of assessment and accreditation is the preparation of the self-study report by the institution along the guidelines formulated by NAAC. On receiving the self-study report from the institution, a visiting team is constituted by NAAC, to validate the self-study report by an onsite visit. The visit extends from three to five days depending on the size and complexity of the unit to be assessed. Towards the end of the visit, the team discusses the issues with the head of the institution for observation and reaction. Through this interaction, any discrepancies and gaps in information are eliminated. The report is shared with the institution and the oral feedback on the highlights of the same are disclosed to the representatives of the institution during the exit meeting. The report signed by the team as well as the head of the institution, along with the confidential recommendations of the team, is passed on to NAAC’s office for consideration. The Executive Committee of NAAC takes the final decision on accreditation.
6.4 NEW METHODOLOGY FOR NAAC ACCREDITATION

All professional organisations undergo a review cycle to assess their performance from time to time. NAAC has reviewed its performance in assessing and accrediting over 3500 higher education institutions. The purpose for the review was to make appropriate strategies for improvement in line with its mission and goals. NAAC has been continuously making efforts to fine-tune the instruments of assessment to achieve greater objectivity and accuracy in its assessment outcome to enable the institution for quality enhancement.

Based on the experience for more than a decade of its operations, and keeping in view the future expansions of stakeholders of higher education, the NAAC has developed and initiated its Roadmap for the XI Plan, from the 1st of April 2007. The Perspective Plan is the result of diverse and varied experience of NAAC through the years.

6.4.1 General Eligibility Criteria for Assessment and Accreditation by NAAC

The National Assessment and Accreditation Council (NAAC) has adopted its New Methodology of Assessment and Accreditation from 1st April 2007. While there are diverse types of Higher Education Institutions (Higher Education Institutions) in the country, some coming under the provisions of other Regulatory Bodies, with their own Quality Assurance Agencies, Assessment and Accreditation by NAAC shall cover the following Institutions, as per the eligibility criteria mentioned therein:

1. Universities recognized under Sections 2f, 2f and 12B, of the UGC Act, 1956 or established under Section 3, which have completed 5 years since establishment or with a record of at least 2 batches of students having completed their degree programmes, whichever is earlier (hereinafter referred to as ‘Recognized Universities’). For purpose of Assessment and Accreditation of Universities, their Schools, Departments, Centre’s and Units shall be taken as the components.

2. If any University under Section 2f or 3 of the UGC has not completed 5 years of establishment, but has Affiliated/ Constituent Institutions under its jurisdiction, which on their own standing have completed 5 years since establishment, then, such Institutions shall be eligible for Assessment and Accreditation by NAAC, on their own independent standing i.e. the Institution alone and not the University to which it is affiliated, shall be eligible for Assessment and Accreditation. Similarly, if a hitherto Affiliated/ Constituent/ Autonomous Institution of long-standing gets recognition as a ‘University’ under Section 3 of the UGC, then, the Institution alone shall be eligible for assessment.
3. Institutions/ Institutions/ Autonomous Institutions affiliated to a ‘Recognized University’, and Constituent Institutions coming under the jurisdiction of ‘Recognized Universities’ (as defined in 1 above) and which have completed 5 years since their establishment or with a record of at least 2 batches of students having competed their degree programmes, whichever is earlier (hereinafter referred to as ‘Recognized Institutions’, ‘Recognized Autonomous Institutions’ and ‘Recognized Constituent Institutions’ respectively).

4. Institutions coming under the jurisdiction of professional regulatory Councils and their accreditation Bodies can be considered for Assessment and Accreditation by NAAC, if such Councils desire to enter into appropriate MoUs with NAAC for their Assessment and Accreditation requirements. The process/ methodology/ modus operandi in these cases shall be as per the provisions of the said MoU. At present, NAAC has an MoU with NCTE for purposes of Assessment and Accreditation of Teacher Education Institutions.

6.5 INSTITUTIONAL ELIGIBILITY FOR QUALITY ASSESSMENT (IEQA)

5. Any other Institutions/ Units (including cross-border and trans-national Indian/ Foreign Institutions) may also be taken up for Assessment and Accreditation by NAAC, if directed by the UGC and or the Ministry of Human Resources Development, Government of India.

The Assessment and Accreditation Process is broadly used for understanding the ‘Quality Status’ of an institution. The ‘Accreditation Status’ indicates that the Institution, University or any other institution of program meets the standards of quality set by the accreditation agency, in terms of the curriculum, teaching-learning and evaluation, faculty, research and development, infrastructure and learning resources, organisation and management, financial status and student services.

Indian higher education system has large number of institutions. There are over 350 Universities and around 18,000 Affiliated Institutions in the country. The Universities, the Autonomous Institutions and the Institutions with Potential for Excellence, as recognized by the UGC would have gone through the process of acquiring their recognition from UGC on specific standards set by it. Therefore, these institutions are directly eligible for undergoing the Assessment and Accreditation process of NAAC. However, in the case of the large number of Affiliated institutions and Constituent institutions of Universities, the situation is different. The quality status of these institutions is highly varied and many may not be ready for quality assessment and accreditation. In order to cater to the large numbers of varying levels of quality, it is imperative for NAAC to introduce an initial process of declaring the ‘Institutional Eligibility’ to these institutions, for seeking Assessment and Accreditation. The ‘candidate’ institution must necessarily satisfy the Institutional Eligibility
Requirements for Quality Assessment and Accreditation as set by the NAAC. They must demonstrate basic compliance with the minimum requirements necessary for teaching-learning processes, to achieve the educational outcome. This means, the institution should have adequate human, financial and physical resources and the potential to attain its goals.

To address the large volume assessment of affiliated institutions, a two-step process has been designed so that the institutions can be identified by their accreditation readiness to go through the comprehensive assessment and accreditation process. The strategy of two step assessment and accreditation might trigger off the movement by starting with the fist step and later, the more rigorous and comprehensive second step.

The advantage of the two step approach will enable NAAC to bring all affiliated and constituent institutions under the NAAC purview. With one comprehensive assessment methodology, it may not be possible to achieve the same objective. The first step can be facilitated by the State Quality Assurance Cell, with the support of the State Government. This strategy will enable NAAC to send peer teams only to such institutions which are ready for the final Assessment and Accreditation.

6.5.1 First-step of Institutional Eligibility for Quality Assessment

‘Institutional Eligibility for Quality Assessment Status’ (IEQA) is granted to an institution in the planning stage of its Assessment and Accreditation. The objectives of the process are:

- To identify the institutions eligible for applying for the comprehensive Assessment and Accreditation by NAAC.
- To provide feedback to the applicants regarding specific improvements needed for reaching the threshold level of quality.

Essentially, this is a process, which ascertains whether an institution is “accreditation ready” or not. Institutions which are below the threshold very low quality need not go through the process of Assessment and Accreditation by a peer team. They can be advised by NAAC to undertake further measures to qualify for the “Institutional Eligibility Quality Assessment Status”, in due course of time. Being a candidate at this stage means in effect that an institution is probably worthy of undergoing Assessment and Accreditation. The approach is more comprehensive and directional, but does not necessarily mean that the institution shall be accredited. The status of institutional accreditation shall be based on the recommendation of the peer team, after the on site visit.

6.5.2 Methodology for Identifying Institutions for IEQA

The instrument consists of a schedule, which will elicit the organizational profile and specific quantitative information about the institution related to the performance requirements. The analysis of the same will be used for establishing the Institutional Eligibility Status.
Appropriate essential attributes are included in this schedule, which will be evaluated using a predetermined scoring guideline.

A number of Assessment Indicators (micro indicators of quality) have been developed for each key aspect under each criterion. These would facilitate the Peer Team as guidelines/probes to arrive at key aspect grade points.

6.5.3 Procedure for Seeking IEQA Status

- Submit a Letter of Intent (LOI) to NAAC, on-line, as per the format.
- Fill-in and submit the format for seeking IEQA status, on-line.
- Remit a non-refundable bank draft of Rs.2,000/- as application fee, payable to NAAC at Bangalore along with the format.
- Await declaration/intimation on your IEQA status or otherwise from NAAC, normally within two months of application by the institution.
- Communicate with NAAC for any further clarifications.

As the instrument is expected to be administered on-line, once a filled-in format is received by NAAC, the responses are subjected to computer analysis based on a set of predetermined scoring guidelines, and the scores obtained by the applicant institutions are presented to an appropriate committee chaired by Director, NAAC. The Committee will finalize the list of the recommended institutions, which would be declared as ‘candidates’ for undergoing the next process of Assessment and Accreditation by NAAC.

6.6 NEW INITIATIVES BY NAAC FOR ACCREDITATION

Broadly the NAAC would focus on the following activities during the XI Plan:

1) Development of a new assessment and accreditation methodology.
2) Assessment to cover all higher education institutions of the country, in a phased manner.
3) Promotion of internal quality assurance systems in higher education institutions.
4) Dissemination of best practices amongst higher education institutions.
5) Development of a pool of trained quality assurance professionals.
6) Promotion of ‘in house’ research on quality assurance; and
7) Capacity building of NAAC.
A brief elaboration of these seven initiatives are given below:

1. Development of a New Assessment and Accreditation Methodology

The assessment methodology is fine-tuned to measure the quality parameters accurately. The criterion structure of NAAC has been modified for re-accreditation methodology with core indicators and a set of micro indicators as guidelines. The consultative meeting with chairmen of peer teams and the institutional feedback were encouraging as for as the changes introduced in the methodology. Taking note of this, the assessment methodology is further fine-tuned to have appropriate weightages for the key aspects and a more exhaustive list of assessment indicators developed to measure the quality profile of the institution based on the criteria with the differential weightage for the type of institutions. It is envisaged that the probes listed in the manual under different criteria will elicit the appropriate responses, which will reflect the assessment indicators.

The main objectives of this new methodology are:

- To ensure continuous/ need-based improvements in the instruments of assessment and accreditation.
- To overcome some of the limitations of the methodology in practice hitherto.
- To enhance the credibility and reliability of the assessment process and outcome.
- To enable NAAC to conduct assessment of large number of institutions effectively and in a short time.

The important features of this new methodology are:

- A two-step approach is introduced for the assessment and accreditation of Affiliated and Constituent Institutions which are seeking assessment and accreditation for the first time.

  Step-1 is the determination of the Institutional Eligibility for Quality Assessment (IEQA) and

  Step-2 is the assessment and accreditation of institutions which have earned their IEQA status.

- Fine-tuning of Criteria, Key aspects and development of Assessment Indicators as guidelines/ profiles for assessment.

- Provision for Key Aspect-wise differential/ weightages for effective measurement of Key Aspect-wise and Criterion-wise quality profile of the institution.

- Changing the grading pattern from the earlier nine-point scale to the new/three letter grades viz: “A”, “B” and “C” for accredited institutions and “D” for those which are not accredited.
• Modification in the institutional overall scoring from the earlier percentage to the Cumulative Grade Point Average (CGPA) system on a four-point scale.

• Development of a specific format for Peer Team Report to elicit focused and evaluative judgements on the institutional quality.

**Modifications in the New Assessment and Accreditation Instrument**

<table>
<thead>
<tr>
<th>Criterion VI</th>
<th>Earlier: Organisation and Management</th>
<th>Now: <strong>Governance and Leadership</strong></th>
</tr>
</thead>
</table>

It is sure that the new instrument of assessment will enable assessors to measure the quality of institutions in a better perspective and the adjudication will focus on right things and rightly too.

2. **Assessment of Large Number of Institutions**

As on 31st March 2007, NAAC has assessed 140 university-level institutions and 3,492 institutions. NAAC have earned the distinction of having covered the highest number of institutions by any Quality Assurance Agency in the world. It is increasingly realised by the stakeholders that NAAC assessment contributes greatly to quality improvement. In spite of this, large number of institutions of the country are yet to be assessed and accredited. It is expected that by the two-step approach of assessment of Affiliated/ Constituent institutions, and with the support of National Agencies and State Higher Education Departments, all the higher education institutions of the country can be assessed during the XI Plan period. To address the onerous task of assessment of large number of higher education institutions, NAAC is networking with other quality assurance agencies, besides making strong attempts at capacity building of NAAC and validation of assessment by select agencies.

3. **Promotion of Internal Quality Assurance Systems**

The NAAC envisages to usher in continuous quality in higher education institutions through a combination of internal and external quality assurance practices. NAAC strongly believes that ultimately, efficient internal systems of quality assurance alone can sustain the quality of any institution. The NAAC has developed detailed guidelines and action points for the functioning of Institutional Internal Quality Assurance Cells (IQACs). As on date, over 50 percent of accredited institutions have established IQACs. It is envisaged that during the XI Plan, every higher education institution (accredited or otherwise) will be motivated by NAAC to initiate systems for internal quality assurance systems.
4. Dissemination of Best Practices

The NAAC has been bringing out series of publications on Best Practices, with the hope that institutions can learn and benefit from each others’ success stories and experiences. In the context of India’s institutional diversity, institutions may have to emulate the best practices of other institutions, contextualize them to their individual situation and add value to their existing practices. There is some truth in the saying that ‘best practices are the borrowed practices’. Therefore, NAAC advocates that sharing of best practices is an important approach to quality improvement.

5. Development of Trained Quality Assurance Professionals

The Peer Teams play an important role in the assessment of institutional quality. It is a judgment activity which requires sharp skills of evaluation and greater objectivity in measurement. Professional skill-based selection of assessors, is essential to ensure credibility to the NAAC operations. Therefore, NAAC proposed to focus on developing a pool of trained quality assurance professionals, to ensure greater stakeholder confidence and acceptability of the NAAC’s Accreditation outcome.

6. NAAC Research Activities

Focused research on quality assurance contributes to the better understanding of complex and diverse realities of higher education. Under its Quality Assurance Resource Centre, NAAC has established a Research Unit to undertake focused research on quality assurance and related areas of study. This unit along with another important unit – the Publications Unit would focus on Quality Assurance as a research, development and promotional activity of NAAC.

7. Capacity Building of NAAC

To undertake newer tasks as above, it is also necessary to reengineer the organisational structure of NAAC. It is hoped that NAAC would be strengthened with more autonomy, more professional staff and state-of-the art use of ICT, to take up the new responsibilities. I am indeed happy to record my appreciation for the support extended by the MHRD and the UGC for creating an enviable new campus facility for NAAC, which has provided adequate physical facilities of international standard.

Hence, it is essential that all higher education institutions should actively participate and cooperate in the NAAC’s vision and task of “Ensuring Quality through Quality Assessment”.

6.7 NEW GRADING PATTERN

Once the instrument and the assessment processes are finalized, it was important to consider how to consolidate the same to arrive at the institutional grade. In the 9-point scale, the numerical score was converted to letter grade maintaining the raw score as the base. It had finer interval levels of 5% for each grade level. However this small percentage
difference was difficult to establish and the relative evaluation was not always exact. It was evident from the high standard deviation. The compound effect of the small percentage difference between grade levels and the high standard deviation makes it difficult to interpret the final grade. Besides, there was clustering of grades at the beginning of each grade level, which clearly indicates some subjectivity in arriving at the final institutional grade.

In the new methodology letter grades are given starting at the lower level of measurement itself and for the aggregated grade points after applying the relevant weightages at the key aspect and criteria level. The grade point averages at the criterion level are used for arriving at the cumulative grade point average. As per the changed grading pattern three grades – A (Very Good), B (Good) and C (Satisfactory) will be given for accredited institutions and D (Unsatisfactory) for those, which were not accredited.

The institutional score will further be used to assign the overall grade. If the overall score is more than 55%, the institution gets the “Accredited status” and any score less than that will lead to “Not Accredited” status. The accredited institutions are graded on a nine-point scale with the following scale values:

<table>
<thead>
<tr>
<th>Institutional Score (upper limit exclusive)</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>95-100</td>
<td>A++</td>
</tr>
<tr>
<td>90-95</td>
<td>A+</td>
</tr>
<tr>
<td>85-90</td>
<td>A</td>
</tr>
<tr>
<td>80-85</td>
<td>B++</td>
</tr>
<tr>
<td>75-80</td>
<td>B+</td>
</tr>
<tr>
<td>70-75</td>
<td>B</td>
</tr>
<tr>
<td>65-70</td>
<td>C++</td>
</tr>
<tr>
<td>60-65</td>
<td>C+</td>
</tr>
<tr>
<td>55-60</td>
<td>C</td>
</tr>
</tbody>
</table>

The grade will also be supplemented by a qualitative report by the team that would highlight the strengths and weaknesses of the institution under various criteria.

Institutions, which do not attain the minimum 55% points for accreditation, would also be intimated and notified indicating that the institution is “Assessed and found not qualified for Accreditation”.

The range of marks of each letter grade, and actual total marks obtained as well as criterion-wise marks will be intimated to the institution and notified.

The advantages of the new grading system would be certainly an improvement. It has wider scope for normalizing the scores. Extreme biases if any would be minimised. At one-point, difference between two
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letter grades, results in appreciable fine-tuning. Relative evaluations would be more exact due to reduction in standard deviation. Inter-team variations can be substantially reduced.

**Cumulative Grade Point Average (CGPA)**

CGPA is the weighted mean values of all grade points earned by the institutions for its various quality parameters and quality aspects under consideration. The CGPA would make the evaluation process more rigorous and provide for a more focused peer team report by reducing the subjectivity.

**Arriving the Institutional CGPA**

- Deciding on the grade for the Key Aspect under a criterion based on the Assessment indicators guidelines. Quality points are assigned to a specific letter grade (for A=4, B=3, C=2 and D=1) KA, -GP, KA, -GP etc.
- The summated score for all the Key Aspects under a criterion is calculated with appropriate weightage and the grade point average for
the criterion in calculated by dividing with the criterion weightage for
the institution (CR-GPA).

- After calculating the Criterion Grade Point Average (CR-GPA) for all
  the 7 criteria, the Cumulative Grade Point Average is calculated for
  the institution, based on the seven CR-GPAs and the application of
  the respective weightage specified for the criterion. In order to obtain
  the CGPA, multiply the criterion GPA by the respective weightage.
  The sum of all these weighted scores are divided by the total
  weightage i.e. 1000. The Cumulative Grade Point Average thus
  obtained will be the final Institutional Quality Level on a four point
  scale.

As a result, the PTR would be less descriptive and more objective, to
reflect the key aspects grade points and the Criterion Grade Point Averages
and the final institutional CGPA.

Table: Criterion Matrix and the Key Aspect Matrix with the
respective differential weightages

<table>
<thead>
<tr>
<th>Criterion Matrix for Institutional Assessment</th>
<th>Key Aspect Matrix under 7 Criteria Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>U Au. Aff/Con</td>
<td>U Au. Aff/Con</td>
</tr>
<tr>
<td>I. Curricular Aspects</td>
<td>1. Curricular design and development</td>
</tr>
<tr>
<td>(150, 100, 50)</td>
<td>(90, 50, 10)</td>
</tr>
<tr>
<td></td>
<td>(30, 20, 15)</td>
</tr>
<tr>
<td></td>
<td>(10, 10, 10)</td>
</tr>
<tr>
<td></td>
<td>(10, 10, 10)</td>
</tr>
<tr>
<td>II. Teaching, Learning and Evaluation</td>
<td>2. Academic flexibility</td>
</tr>
<tr>
<td>(250, 350, 450)</td>
<td>(90, 170, 270)</td>
</tr>
<tr>
<td></td>
<td>(60, 65, 65)</td>
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<tr>
<td></td>
<td>3. Feedback on curriculum</td>
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<tr>
<td></td>
<td>4. Curriculum update</td>
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<tr>
<td></td>
<td>5. Best practices in curricular aspects</td>
</tr>
<tr>
<td></td>
<td>1. Admission process &amp; student profile</td>
</tr>
<tr>
<td></td>
<td>2. Catering to diverse needs</td>
</tr>
<tr>
<td></td>
<td>3. Teaching-learning process</td>
</tr>
<tr>
<td></td>
<td>4. Teacher quality</td>
</tr>
<tr>
<td></td>
<td>(20, 30, 30)</td>
</tr>
<tr>
<td></td>
<td>(20, 35, 45)</td>
</tr>
<tr>
<td></td>
<td>(90, 170, 270)</td>
</tr>
<tr>
<td></td>
<td>(60, 65, 65)</td>
</tr>
</tbody>
</table>

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#### III. Research, Consultancy and Extension (200, 150, 100)

1. Promotion of research  
2. Research and publication output  
3. Consultancy  
4. Extension activities  
5. Collaborations  
6. Best practices in research consultancy & extension (40, 30, 15)  
   (90, 50, 25)  
   (20, 10, 05)  
   (30, 40, 40)  
   (10, 10, 05)  
   (10, 10, 10)

#### IV. Infrastructure and Learning Resources (100, 100, 100)

1. Physical facilities for learning  
2. Maintenance of infrastructure  
3. Library as a learning resource  
4. ICT as learning resources  
5. Other facilities  
6. Best practices in teaching, learning & evaluation (20, 20, 20)  
   (10, 10, 10)  
   (35, 35, 35)  
   (15, 15, 15)  
   (10, 10, 10)  
   (10, 10, 10)
<table>
<thead>
<tr>
<th>V. Student Support and Progression</th>
<th>(100, 100, 100)</th>
<th>Quality issues in Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student progressio</td>
<td>(30, 30, 30)</td>
<td></td>
</tr>
<tr>
<td>2. Student support</td>
<td>(30, 30, 30)</td>
<td></td>
</tr>
<tr>
<td>3. Student activities</td>
<td>(10, 10, 10)</td>
<td></td>
</tr>
<tr>
<td>4. Best practices in student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Student support &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. Governance and</td>
<td>(150, 150, 150)</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Institutional vision and</td>
<td>(15, 15, 15)</td>
<td></td>
</tr>
<tr>
<td>2. Organisational arrangements</td>
<td>(20, 20, 20)</td>
<td></td>
</tr>
<tr>
<td>3. Strategy development &amp;</td>
<td>(30, 30, 30)</td>
<td></td>
</tr>
<tr>
<td>4. Human resource management</td>
<td>(40, 40, 40)</td>
<td></td>
</tr>
<tr>
<td>5. Financial management and</td>
<td>(35, 35, 35)</td>
<td></td>
</tr>
<tr>
<td>resources mobilization</td>
<td>(10, 10, 10)</td>
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</tbody>
</table>

**NOTES**

Self Instructional Material
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<table>
<thead>
<tr>
<th>VII. Innovative Practices</th>
<th>6. Best practices in governance and leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>(50, 50, 50)</td>
<td>(20, 20, 20)</td>
</tr>
<tr>
<td></td>
<td>(15, 15, 15)</td>
</tr>
<tr>
<td></td>
<td>(15, 15, 15)</td>
</tr>
<tr>
<td>Total 7 Criteria</td>
<td>1000</td>
</tr>
<tr>
<td>Total Key Aspects</td>
<td>36</td>
</tr>
</tbody>
</table>

U=University, Au = Autonomous Institution, Aff./Const = Affiliated/Constituent Institution

6.8 RE-ACCREDITATION PROCESSES

The National Assessment and Accreditation Council has successfully launched the re-accreditation methodology for the first batch of Higher Education Institutions that were earlier accredited during 1998-99. This exercise has brought many valuable lessons and unfolded the success of many new strategies piloted.

The NAAC has brought a new emphasis to the process of institutional accreditation through promotion of Internal Quality Assurance Cells (IQACs) and linking it to re-accreditation. While institutional accreditation in the initial phase has focused on the review by an external team of peers, though based on the self-study of the institution, the re-accreditation process has made a marked difference in its approach by placing much more importance on the internal quality assurance mechanisms of the institution. In fact a part of the external review team’s responsibility is to see how robust the internal structures are to enhance institutional quality. This deviation is not incidental but by design and there is a reason for doing so.

As all of us are aware, the major objective of assessment and accreditation by the NAAC is to lead to continuous institutional improvement. There is ample evidence to demonstrate that the first assessment has triggered this process. However, the character of Higher
Education Institutions and the design of the assessment methodology without a follow-up strategy are such that it is highly probable that post-accreditation complacency, once the initial excitement of the accreditation experience wears off. If this risk has to be minimized the character of the self-study should change. The transition from self study viewed as a “once-in-five-years activity to produce a report for the assessment team” to “self study viewed as a continuous process” should take place.

This understanding has made the NAAC introduce the establishment of the IQAC as a minimum institutional requirement for re-accreditation. How does it help in changing the character of self-study?

The guidelines developed by the NAAC outlining the functions and responsibilities of the IQAC indicate that the IQACs are expected to submit Annual Quality Progress Reports (AQPRs) to the NAAC. When the peer team visits an institution for re-accreditation, in addition to the Re-Accreditation Report, the AQPRs will also be analysed by the peer teams. In all the Higher Education Institutions visited for re-accreditation, NAAC could see that IQACs have been activated on receiving NAAC’s guidelines. It is true that the first batch of Higher Education Institutions were not given enough time to stabilize the IQACs but the way they have functioned and the benefits that have accrued to the Higher Education Institutions make a significant difference.

6.8.1 Re-Accreditation: Not for Compliance but for Continuous Improvement

Instead of taking this as a compliance requirement, what can Higher Education Institutions do to get the maximum benefits and what are the major benefits? There are at least four major benefits, even in the short term.

Firstly, the IQAC can contribute to a heightened level of clarity and focus in institutional functioning towards quality enhancement and facilitate internationalization of the quality culture. Secondly, it can enhance integration among the various activities of the institution and institutionalize many good practices. Thirdly, it can provide a sound basis for decision-making to improve institutional functioning. Finally, it can be a change agent in the institution.

To make all these contributions possible, it is necessary that IQACs build on the lessons of the first assessment and initiate institution-wide action to address the quality related problems. The first assessment report would be a good starting point to do this.

Value Framework

NAAC strives to promote the following core values among the Higher Education Institutions of the country:

- Contributing to national development
- Fostering global competencies among students
Inculcating a value system in students
• Promoting the use of technology
• Quest for excellence

Apart from the guidelines given by the NAAC which provide just an approach to the effective functioning of IQACs; there can be other approaches too. Higher Education Institutions vary a lot in their structure, focus and the context in which they function. To suit the unique institutional context, each institution has to evolve its own model of the IQAC without losing sight of the principle of “continuous improvement from within”. With the re-accreditation process signaling to Higher Education Institutions, the centrality of internal structures for quality enhance, it is sure Higher Education Institutions will find many different ways to translating this principle into action.

Check your progress: 6

Note: a) Write your answers in the space given below
   b) Compare your answers with those given at the end of the unit.

1. What are the three stages of Assessment and Accreditation that NAAC follows?

2. Name any two core values that NAAC strives to promote in Higher Education Institutions.

6.9 LET US SUM UP

The fast-changing technologies also call for Continuing Education Programs for personnel from industry. Similarly, industrial-internship for faculty will give them a sound exposure to the industrial practices. Industrial visits and industrial training are essential for creating professionalism among the students, and will help them in securing placement at appropriate levels in industries and other employment sectors. In this unit we have discussed about the Existing practices of assessment and accreditation by naac, the methodology of Re-accreditation process, explained the Institutional eligibility for quality assessment (IEQA), understood the New initiatives by NAAC for accreditation and also discussed the New grading pattern and Re-accreditation process.

6.10 UNIT END EXERCISES

1. Critically analyze the existing practice of assessment and accreditation of NAAC.

2. What are the new initiatives taken by NAAC for assessment and accreditation?

3. Write a note on new grading pattern of NAAC.
4. Discuss the methodology of Re-accreditation process.

6.11 ANSWERS TO CHECK YOUR PROGRESS

1. i) Preparation and submission of self-study report by the unit of assessment
   ii) On-site visit of the peer team for validation of the report
   iii) Final decision by the Executive Council of NAAC.

2. Contributing to national development, Fostering global competencies among students

6.12 SUGGESTED READING


UNIT 7 - NATIONAL BOARD OF ACCREDITATION (NBA)

Structure
7.1 Introduction
7.2 Objectives
7.3 Accreditation of technical institutions
7.4 Need for accreditation
7.5 Eligibility for accreditation
    7.5.1 Advantages of Accreditation by NBA
    7.5.2 What does Accreditation Signify?
    7.5.3 Difference between AICTE approval and NBA Accreditation
    7.5.4 Accreditation of the Institutional Programs by NBA is based on
    7.5.5 What is NBA’s Quality Grading Format?
7.6 Process of accreditation
7.7 Criteria and weightages
    7.7.1 Accreditation parameters and their weightages
7.8 Let us sum up
7.9 Unit end exercises
7.10 Answers to check your progress
7.11 Suggested Reading

7.1 INTRODUCTION (PREAMBLE)

The New Education Policy of 1986 had recognized the need for a statutory Body at the national level responsible for overseeing the growth and quality of technical education in the country. Accordingly the All India Council for Technical Education (AICTE) was established by an Act of the Parliament in 1987. As a part of its programmes and activities, the National Board of Accreditation (NBA) was set up in September 1994 by the AICTE as an Autonomous Body, under Section 10(u) of the AICTE Act, 1987, "to periodically conduct evaluation of technical Institutions or Programmes on the basis of guidelines, Norms and Standards specified by it and to make recommendations to it, AICTE or to the Council, or to the Commission or to the other bodies, regarding recognition or de-recognition of the institution or programme."

NBA assesses the qualitative competence of educational institutions from the Diploma level to the Post-Graduate level in Engineering and Technology, Management, Pharmacy, Architecture, Town Planning and
related disciplines. The NBA is also concerned with assessing and assuring the quality of the various constituent elements of these educational institutions, such as academic ambience, infrastructure, financial resources, physical resources, human resources, supporting systems like library resources, computational resources, and avenues to mould and develop the students’ personality and learning characteristics. The NBA functions through its Board, Sectorial Committees, and the Visiting Teams and is supported by its Secretariat, located at the AICTE Headquarters, New Delhi.

7.2 OBJECTIVES

After going through this unit, you should be able to

- Discuss the Accreditation of technical institutions
- Discuss the Need for accreditation
- Explain the Eligibility for accreditation
- Understand the Process of accreditation
- Discuss the Criteria and weightages

7.3 ACCREDITATION OF TECHNICAL INSTITUTIONS

Literally Accreditation means recognition and guarantee of minimum quality. For the NBA it means a process of quality assurance, giving credit where it is due for some clearly visible and demonstrable strategies of academic activities and objectives of the institutions, known to be honestly pursued and efficiently achieved by the resources currently available with a potential for continuous improvement in quality for effective growth.

Accreditation is a process of quality assurance, whereby a programme in an approved institution is critically appraised at intervals not exceeding six years to verify that the institution or the programme meets the Norms and Standards prescribed by the AICTE from time to time. Accreditation does not seek to replace the system of award of Degrees and Diplomas by the Universities and Boards of Technical Education. But, accreditation provides quality assurance that the academic aims and objectives of the institution are known to be honestly pursued and effectively achieved by the resources currently available, and that the institution has demonstrated capabilities to ensure effectiveness of the educational programme(s), over the validity period of accreditation.

A major policy adopted by the NBA is to accord accreditation, not to the institution as a whole, but at the programme level, like the three year Diploma programme after 10, four-year undergraduate engineering Degree course after 10+2, and the semester M.E./M.Tech programme after the Bachelor’s Degree. Furthermore, the programmes are to be graded into three categories viz., Accredited for five years, Accredited for three years and Not Accredited (NA), depending on the marks they achieve on a 1000-
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point scale. This is especially important for promoting a healthy competition for quality achievement among the different Degree/Diploma programmes of the same institution, as well as among similar programmes in different institutions. Thus, in a given institution, some programmes may be accredited for five years, while some others may be accredited for three years and some even denied accreditation.

7.4 NEED FOR ACCREDITATION

The need and demand for accreditation of technical education programmes in India has arisen because of the explosive growth in the number and the variety of such educational institutions and programmes since the decade of the nineties. Though education in Engineering and Technology continues to be available only to less than ten percent of eligible 10+2 graduates, it is not possible to meaningfully sustain the present growth rate without a parallel exercise in quality assessment of the programmes. Such an exercise will ensure that the institution indeed has, and is likely to continue to have in the near future, the necessary instruments and resources, for the programmes to deliver technical manpower that not only meets the local industry requirements, but is also an acceptable human resource for the global job market in the Engineering and Technology sectors.

The overwhelming objective of the accreditation process is to recognize and acknowledge the value-addition in transforming the raw student admitted to the programme into a capable technical professional, having a sound knowledge of fundamentals and an acceptable level of professional and personal competence for ready employability in responsible technical assignments.

7.5 ELIGIBILITY FOR ACCREDITATION

Programmes approved by the AICTE, which have graduated at least two batches of students, are eligible to apply for accreditation. The NBA has already assessed and accredited nearly 1000 programmes in about 200 technical institutions in the country covering a wide spectrum, that includes full-fledged technical Universities, autonomous/ affiliated/ Government/ aided Institutions, National Institutes of Technology (earlier Regional Engineering Colleges), as well as private self-financing Institutions.

7.5.1 Advantages of Accreditation by NBA

If your institution and your programmes are accredited by NBA, you will be able to

- Identify your programs with excellence in technical education.
- Assure of conformity to good practices and bench marks of global requirements...
- Rate your programs on a national platform to attract better student intake.
- Appraise yourself of your own facilities, faculty vise performance.
• Satisfy vendor of human capital to world-class employers and other stake holders.

7.5.2 What does Accreditation Signify?

Accreditation signifies different things to different stake holders

➢ For the parents, it signifies that their child goes through a teaching-learning environment as per accepted good practices.
➢ For the students, it signifies that he has entered the portals of an institution, which has the essential and desirable features of Quality Professional Education.
➢ For the employers, it signifies that the students passing out has competence based on well grounded technical inputs
➢ For AICTE, it signifies that the institutional performance is based on assessment through a competent body of quality assessors, with of Strengths & Weaknesses emanating as a feedback for policy-making.
➢ For the institution, it signifies its strengths, weaknesses and opportunities for future growth.
➢ For the industry and infrastructure providers it signifies, identification of quality of institutional capabilities and skills and knowledge.
➢ For the country, it signifies confidence in the Suitability for sustaining stockpiles of market sensitive human capital and a pragmatic national development perspective.
➢ For the alumni, it signifies attachment through the pride of passing out with credentials.

7.5.3 Difference between AICTE approval and NBA Accreditation

Approval of AICTE for new Institutions or for starting new programmes is based on credibility of Institutional Management and the Programme providers.

• Assurance of Compliance to AICTE Norms and Standards.
• Prior approval by the State Government and University or other competent authority.
• Market sensitivity of programme output, to avoid imbalance in supply of qualified manpower.

7.5.4 Accreditation of the Institutional Programmes by NBA is based on

❖ Availability of potential for sustaining and improving upon assessment criteria
❖ Recognition by all stake holders like the end-users, institutional products and the community at large
7.5.5 What is NBA’s Quality Grading Format?

NBA has revised the grading to a two-part grading system i.e. accredited and not accredited. Those programmes which score more than 650 marks will be considered as Accredited whereas those who score less than 650 will be Not Accredited. In order to differentiate between the institutions getting more than 650 marks, the institutions which score between 650-750 will be accredited for a period of 3 years, whereas those institutions which score more than 750 will be accredited for a period of 5 years. This new two-part grading system came into effect from January 1, 2003.

7.6 PROCESS OF ACCREDITATION

Accreditation of institutional programmes go through various stages of the process detailed below:

1. The institution obtains priced publications viz., manuals of Accreditation along with the Application form.
2. The institution responds to the two part Questionnaire
   Part I - About Institution
   Part II - About Individual Programme.
3. NBA’s Secretariat scrutinises the application for adequacy of information, relevance and prima face eligibility for Accreditation
   • seeks suitable dates for visit by the Accreditation Team.
   • constitutes the Accreditation Team.
   • prepares brief for the members of the team.
4. Accreditation Team visits the institution and makes recommendations.
5. Team Recommendations are presented to the Sectorial Committee.
6. The NBA considers the recommendations of the Sectorial Committee and
7. The results are placed in the EC of AICTE for information.
8. The results are notified and published in the Directory of Accredited Programmes of institutions.

Who can apply for Accreditation by NBA?

• If an institution and its programmes are approved by the AICTE
• If at least two batches of students have passed out of the programme.

Which programmes come under Accreditation by NBA

Under the provisions of the AICTE Act of 1987 all diploma, degree and post graduate programmes coming under the following disciplines are covered under Accreditation by NBA
One of the major objectives of NBA is to encourage the institutions to continually strive towards the attainment of excellence. The NBA evaluation processes are so designed as to facilitate identification of the strengths and weaknesses of the programmes under accreditation. The NBA hopes that this will help the institutions in improving the quality and effectiveness of their programmes.

As indicated in an earlier paragraph, the evaluation process is based on a set of eight broad-based criteria developed through a lengthy participatory process involving more than 1000 participants concerned with Technical Education all over India. These criteria are being described here in some detail. Each criterion serves to assess a principal feature on the institutional activities and programme effectiveness. Hence, each of them is described in terms of carefully identified parameters, amenable to a substantially objective and quantitative assessment.

Institutions seeking accreditation of their programmes are expected to satisfy each of the criteria individually. They are expected to adhere to these criteria during the validity period of accreditation granted. They are also encouraged to periodically review the strengths and weaknesses of their programmes and strive for their continuous improvement.

**Criterion I: ORGANIZATION AND GOVERNANCE**

This criterion applies to Institutional Management, Organization and Governance. Every institution should have a mission and a set of goals. Every programme offered by the institution should also have its objectives and goals. The mission and goals should be articulated and made known to every one in the institution.

The successful pursuit and realization of the mission and goals and the means adopted to accomplish them brings out the quality of the institution and its programmes. The goals should be concrete and realistic within the context of the committed resources. They should define the educational and other dimensions, including scholarship, research, public service and customer satisfaction. The effectiveness and extent of achievement of goals depend on the commitment, attitude, planning and monitoring capacity, incentives and self-appraisal policies of the Management. Similarly, Organization and Governance depend on the qualities of leadership, motivation, transparency of the operation,
decentralization and delegation of powers, participation of faculty in the management, planning, and general efficiency indices.

**Criterion II: FINANCIAL RESOURCES, ALLOCATION AND UTILIZATION**

There is a need for the institution to be financially stable. The financial resources should be adequate to sustain not only the achievement of current educational objectives, but also provide for improvements in the foreseeable future. There should be a mechanism to ensure proper financial management and a well-organized process. Not only the allocation of adequate budget for capital (non-recurring) works (including infrastructure, and equipment) and Operational (Maintenance) budget and development budget of recurring type are important, but also their utilization for institutional/departmental activities besides, generation/mobilization of finances are also important for the future of institution/programmes.

**Criterion III: PHYSICAL RESOURCES (CENTRAL FACILITIES)**

There must be available adequate space and appropriate physical resources, including buildings, laboratories, equipment, material, library and other ancillary facilities. While examining the physical resources, there is a need to ensure provisions for safety, security and hygiene. Besides, the availability of language laboratory, counseling and guidance cell, medical facilities, canteen, transport and other units will go a long way in gaining the confidence and respect of students and faculty/staff alike, leading to considerable improvements in the quality of the programmes.

**Criterion IV: HUMAN RESOURCES: FACULTY AND STAFF**

The faculty strength, cadres, qualification and level of competence and performance should be adequate to accomplish the institutional mission and goals. The commitment, attitudes and communication skills of the faculty play an important and crucial role in successfully running the academic programmes. This, in turn, depends upon the recruitment procedures, incentives, exposure to industrial activities, faculty development programmes and workload of the faculty. Each institution should have self-appraisal and in-house performance-appraisal mechanisms to monitor and ensure their continued effectiveness.

The qualifications of the faculty relevant to the programme area are generally measured by the advanced Degrees held by them, and their scholarship, creative activities and professional experience. The faculty are expected to act not only as instructors, but also as student advisors, academic planners and curriculum developers, and also to assist in institutional administration.

Faculty selection reflects the effectiveness of the management’s commitment. The institution is expected to adopt an open process for recruiting its faculty members. Adequate employment security, salaries and benefits to commensurate with the position, provision for continued
professional development, and periodic evaluation for their vertical mobility should be ensured and made known to the faculty.

The workload of the faculty should be such that it should not hinder their effective performance. The institution should protect and foster academic freedom for each member of the faculty and develop mechanisms to ensure that the faculty act responsibly, ethically and in conformity with the prescribed conditions of employment. The faculty members should strive to maintain professional competence and scholarly pursuits.

In the case of supporting staff, besides adequate numbers and appropriate qualifications, the requirements are: hands-on experience, skills, attitudes, commitment and involvement with the institutional objectives. The recruitment procedures, performance appraisal, incentives skill development possibilities and rewards should be transparent and objective. The inter-personal relations and interactions among and between faculty, supporting staff and students constitute an important ingredient in achieving the institutional goals.

**Criterion V: HUMAN RESOURCES: STUDENTS**

The administrative policies and procedures should be objective and transparent. The number of qualified candidates in national/state level tests, the number admitted and dropouts, their ranking in the overall merit list of candidates seeking admission, are some of the factors that reflect the institutional effectiveness. The evaluation procedures, academic results and time taken for completion of these requirements are important parameters. The graduation requirements should be made known to every student. The Diploma/Degree awarded should appropriately reflect the student’s attainments. Information with regard to employment of the graduates and feedback from the employers help the institution to reorient its goals so as to enhance effectiveness.

**Criterion VI: TEACHING-LEARNING PROCESSES**

Each Diploma programme should be comprehensive to provide the student sufficient inputs in basic sciences, technical subjects (including general and specific/chosen), different technologies and training in relevant experimental/technical skills, so as to embark on a technical career as a Diploma holder or to enter into a professional engineering stream.

Each undergraduate Degree programme should embody general and specialized professional content of adequate depth and breadth, and should include appropriate Humanities and Science components. The core of the main programme should concentrate on acquisition of knowledge and skills in the specific discipline, and also ensure exposure to inter-disciplinary areas. There should also be an effective relationship between the curricular content and practice in the field of specialization. In addition, the students successfully completing the programme should demonstrate their competence in oral communication, scientific and quantitative reasoning, critical analysis, logical thinking, creativity and capacity for self-learning.
Postgraduate degree programmes should be designed to give students mastery in their specialized field of study. They should have coherent curricula and should enable the students to advance substantially beyond the educational requirements of the undergraduate Degree level.

The institutions offering both undergraduate and postgraduate Degree programmes should assess the relationship and interdependence of the two levels, and utilize the resources of both for collective improvement. Postgraduate programmes should not be offered unless resources and expectations greatly exceed those required for the corresponding undergraduate programme.

The academic calendar, number of instructional days, contact hours per week, delivery of syllabus, student evaluation and feedback are some of the important aspects in evaluating the teaching-learning processes. Effective teaching-learning processes include the development of practical skills through laboratory experiments, workshop practice and operation of modern equipment. They also require the inculcation of computing skills which make the availability of extensive library, internet and educational technology facilities a major necessity. The budget provision to meet the expenditure for the consumables required in the laboratories and the workshops is one of the indicators of the extent of hands-on practice that can be given. Implementation of the instructional programmes, lectures, tutorials, student-teacher interactions, group discussions, student centric learning initiatives, seminars and laboratory work have a direct bearing on the effectiveness of the teaching-learning processes. Maintenance of the course files by the teachers will help in assessing the effectiveness of the teaching and learning processes.

**Criterion VII: SUPPLEMENTARY PROCESSES**

The institution should provide the environment, which fosters not only the intellectual, but also the personality development of its students. It should have personality development opportunities provided through co-curricular and extra-curricular activities and student services. These opportunities are to enable the students to become responsible members of the society. The services and facilities should be readily accessible to the students.

The students undergoing the programme should have access to facilities for career development, counselling and health education. Opportunities to develop leadership qualities and participation in seminars and group discussions should be created.

The institution offering the programme should ensure that individuals responsible for co-curricular activities are well trained with work experience and possess personal qualities required to deal with the needs of students effectively. Facilities and funding should be adequate to create and maintain these student services. Policies concerning student responsibilities and grievance-redressal procedures are to be clearly stated.
and publicized. There should be a mechanism for regular and systematic evaluation to assess the fulfillment of the co-curricular goals and student needs.

Counselling and Guidance, professional society activities and entrepreneurship development, business ethics are some of the supplementary processes, which need to be promoted. Substantial feedback from employers and alumni should be obtained to assess the effectiveness of the academic programmes.

**Criterion VIII: RESEARCH & DEVELOPMENT AND INTERACTION EFFORT**

In the case of Diploma and undergraduate Degree programmes, teachers should participate in projects and quality improvement programmes in research institutions/ University departments. Such an involvement will not only improve the teaching- learning processes, but also enhance the quality of project work.

In the case of postgraduate Degree programmes, the aim should be to attain the stature of a Centre of Excellence. Grant of the status of Special Assistance Programme/ COSIST or other such support from UGC and other Agencies of the Government is an indication of the quality of the postgraduate Degree Programmes. The department should also undertake academic/ sponsored industrial R & D projects. Joint guidance with industry/ R & D laboratory/ other institutions for Ph. D theses / M Tech. Projects will not only develop close interaction between the department, industry and R & D laboratories, but will also enhance the quality of research. The criteria for evaluation of the Ph. D theses and M Tech. projects are important indicators of the quality of research work. Publications, citations, patents and resource allocation are the other indicators of the effectiveness of research work relevant to the postgraduate programmes.

Industry participation in curriculum planning, consultancy, project work and extension lectures are essential to achieve the professional goals of the academic programmes in Engineering and Technology. At the same time, the knowledge and experience of the teachers can be utilized by the industry for technical advice. This, in turn, will help the teachers to gain insight into the latest industrial practices.

**7.7.1 Accreditation parameters and their weightages**

Each of the criteria described above has been broken down into parameters, and weightages have been assigned to these parameters by the NBA. The parameters and the weightages assigned to them, which are different for Diploma, undergraduate (UG) Degree and postgraduate (PG) Degree programs are given below:
### I. ORGANISATION AND GOVERNANCE (30)

- Planning and Monitoring
- Recruitment Procedure and its Effectiveness
- Promotional Policies/Procedure
- Leadership
- Motivational Initiatives
- Transparency
- Decentralization and Delegation and participation of faculty
- Constitution of GC/GB

### II. FINANCIAL RESOURCES, ALLOCATION & UTILIZATION (70)

#### II.1 Budget allocated to the Institution & Utilization

<table>
<thead>
<tr>
<th>Recurring budget</th>
<th>Non-recurring Budget</th>
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<tbody>
<tr>
<td>35</td>
<td>25</td>
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</table>

#### II.2 Budget allocated to the Department & Utilization

<table>
<thead>
<tr>
<th>Recurring budget</th>
<th>Non-recurring Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>25</td>
</tr>
</tbody>
</table>

### III. PHYSICAL RESOURCES (CENTRAL FACILITIES) (50)

- Students’ Hostel (Men & Women)
- Power back up: Institution/Department/Hostels
- Reprographic facilities
- Bank, Post Office
- Counseling and Guidance, Language Lab.
- Medical Facility
- Internet Facility
- Canteen
- Transport
IV. HUMAN RESOURCES (FACULTY & STAFF) (200) (200)

IV.1 Faculty 160 160 160
(a) Numbers, Student-Faculty ratio, Cadre ratio, average experience, faculty retention, Turnover
(b) Qualifications
(c) Participation of faculty in Institutional development/ Departmental development/ Academic matters/ Students Development/ Self growth
(d) Implementation and Impact of Faculty
(e) Development initiatives
(f) Analysis and Follow-up of Performance appraisal
(g) Service rules, pay package, incentives

IV.2 Support Staff (Tech. /Adm.) 40 40 40
(a) Numbers
(b) Qualification/ skills (Lab., Office, Computer centre etc.)
(c) Skill up gradation

V. HUMAN RESOURCES-STUDENTS (100) (100)
(a) Student admissions
(b) Academic results
(c) Performance in competitive examinations
(d) Placement

UG   PG
VI. TEACHING-LEARNING PROCESSES (450)
(350) (250)
(a) Delivery of syllabus, contents
(b) Contents beyond the syllabus
(c) Academic calendar
(d) Continuous evaluation procedure
(e) Utilization of Laboratories/ Equipment
(f) Information access facilities
(g) Student centric learning initiatives
(h) Students feedback

VII. SUPPLEMENTARY PROCESSES (50) (50)
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Quality issues in Education

(a) Extra & co-curricular activities
(b) Personality Development initiatives
(c) Professional society activities
(d) Entrepreneurship Development
(e) Alumni Interaction
(f) Ethics
(g) Students Publications/ Awards

VIII. R&D AND INTERACTION EFFORT

(a) Budget for in house R&D activities and its utilization
(b) Academic/ Sponsored/Industrial research and development
(c) Publications and Patents
(d) Industry participation in developmental and student related activities
(e) Continuing Education (organizing & attending)
(f) Consultancy and Testing
(g) Students’ Project Work

Check your progress: 7
Note: a) Write your answers in the space given below
    b) Compare your answers with those given at the end of the unit.

1. Who can apply for accreditation by NBA?
2. Which programmes come under Accreditation by NBA?

7.8 LET US SUM UP

In addition to NAAC and NBA the responsibility for promotion and coordination of the Open University and distance education system, and for determination of its standards, has been assigned to Distance Education Council of the Indira Gandhi National Open University (DEC-IGNOU). The responsibility of maintaining standards in different professional programmes rests with different statutory councils that have been established through Acts of Parliament. These include the All India Council for Technical Education (AICTE), National Council for Teacher Education (NCTE), Bar Council of India (BCI), Medical Council of India (MCI), Pharmacy Council of India (PCI), Indian Nursing Council (INC), Dentists’ Council of India (DCI), Central Council for Homeopathy (CCH), Central Council for Indian Medicine (CCIM), Veterinary Council of India (VCI) and Rehabilitation Council of India (RCI).
### 7.9  UNIT END EXERCISES

1. Discuss the Accreditation of technical institutions
2. Discuss the Need for accreditation
3. Explain the Eligibility for accreditation
4. Analyze the Process of accreditation
5. Discuss the different Criteria and weightages

### 7.10  ANSWERS TO CHECK YOUR PROGRESS

1. An institution whose programmes are approved by the AICTE or at least two batches of students have passed out of the programme.

### 7.11  SUGGESTED READING

8.1 INTRODUCTION

The origin of Total Quality Management (TQM) can be traced to the work of two Americans, Deming and Juran. Both approached the issue of quality from a background of statistics used in manufacturing processes in the engineering industry. Their work was first widely adopted in Japan, ‘discovered’ in the USA in the late 1970s and subsequently in Britain in the early 1980s.

TQM, as required by quality assurance, is a philosophy of continuous improvement which can provide educational institutions with appropriate tools for meeting the expectations of its customers (Sallis, 1993). TQM gives prime importance to the interest of the customer, and stresses continuous innovation, improvement and change. This approach emphasizes that in each organisation there is a considerable dormant potential in its personnel, and this should be given an opportunity to express itself.

TQM offers a vehicle for educational institutions to manage themselves effectively in a time of rapid change and retain a clear focus on the essential and dominant purposes of education.

8.2 OBJECTIVES

After going through this unit, you should be able to
- Define TQM
- Discuss the objectives and elements of TQM
- Discuss the Total quality management plans
- Discuss the Customers of higher education institutions
8.3 DEFINITION OF TQM

Mukhopdhyay (2005) remarks that, depending on the goals, the term ‘Quality in education’ has been defined as excellence in education (Peters and Waterman 1982); value addition in education (Fiegenbaum 1952); fitness for educational purpose (Juran & Gryna 1988); conformance of education output to planned goals, specifications and requirements (Glimore 1974; Crosby 1979); defect avoidance in education process (Crosby 1979); and meeting or exceeding customers’ expectations of education (Parsuraman 1985).

Cheng define education quality as “… the character of the set of elements in the input, process and output of the education system that provides services that completely satisfy both internal and external strategic contributes by meeting their expectations”.

Mukhopadhyay (2005) has made a significant research on Total Quality Management in Indian education basing on his first edition of the book, “Total Quality Management in Education”, 2001. He carried out the study in different Indian universities, schools and institutions. His research has resulted into the identification of fifteen fundamental principles for Total Quality Management in education.

Dheeraj Malhotra has conducted a study on Deming’s concept of Total Quality Management and its applicability in academics based on J.J. Bonstingl’s article, “The Quality Revolution in Education”, where he outlines the TQM principles he believes are the most salient to education reform. The four principles of Total Quality Management are: synergistic relationships, continuous improvement and self-evaluation, a system of ongoing process and leadership (www.isixsigma.com).

Lewis & Smith (1994) have exemplified Total Quality Management at Ohio State University. According to them, principles and concepts of Total Quality Management are compatible with best tradition and practices of higher education. They have offered seven philosophies: values, norms and values reflected in Total Quality Management are appropriate to Higher Education Institutions.

According to Harris (1994), there are three generic approaches to TQM: a customer focused approach, where the idea of service to students is fostered through staff training and development; a staff focused approach, concerned to value and enhance the contribution of all the members of staff to the effectiveness of school; and the third that takes a service agreement focus and seeks to ensure conformity to specification at certain key measurable points of the education process.
8.4 ELEMENTS OF TQM

According to Kehoe (1996) the main components of TQM are as follows:
- Senior management commitment
- Improvement orientation
- Customer focus
- Company-wide improvement
- Commitment to training and education
- Ownership of the process
- Emphasis on measurement and review; and
- Teamwork

Teaching being one of the main activities of the universities, bringing qualitative improvements in teaching-learning and optimizing student learning should be the thrust area. But taking a holistic view, total quality management in higher education means improving quality of courses, input, instructional processes, resources, management process and structures as well as student support services, output and linkages with world of work and other organizations.

8.5 TOTAL QUALITY MANAGEMENT PLANS

There are several alternative ways of developing the final plan or roadmap for implementing Total Quality Management in educational institutions. Crawford (1990) has recommended eight steps for implementing Total Quality Management in Higher Education Institutions. Frazier (1997) has suggested a six step roadmap: prepare, assess, plan, deploy, sustain and break through. Similarly, Navaratnam (1997) has offered a six-stage quality journey. Chaffe & Tierney (1988) have identified nine areas to provide a broad context within which to consider application of Total Quality Management. These steps are essentially process-oriented.

Mukhopadhyay (2005) has proposed a workable strategic plan for the adoption of Total Quality Management in Higher Education Institutions. He has built the strategic plan in seven steps:

- Belief, vision, mission, goals
- Learner’s need assessment and client education
- Institutional assessment and SWOT analysis
- Quality policy and intervention plan
- Cost of quality
- Planning for implementation; and
- Evaluation and feedback

Haworth and Conrad (1997) have developed one model of describing Total Quality Management. They call it “engagement theory”, where the central idea is student, faculty (academics) and administrative
engagement is teaching and learning. Crumrine and Runnels (1991) offer a model for implementing Total Quality Management in vocational – technical school or similar institutions that identifies five categories or phases for implementation: commitment, organisation development, customer focus, process orientation and continuous improvement.

Sutcliffe and Pollock (1992) have suggested that “implementation begins with the drawing up of quality policy statement and the establishment of organizational framework for both managing and encouraging the involvement of all parties in attaining quality through framework”.

### 8.6 APPROACHES TO TQM IN HIGHER EDUCATION

Some of the initiatives taken at University of Ulster in adopting TQM include (Ellis, 1993):

- Identifying teaching skills through consultation,
- Quality circles for teaching standards,
- Use of student feedback,
- Instituting distinguished teaching award,
- Selection of staff based upon interview and presentation,
- Staff development through teacher training,
- Preparation of teaching evaluation schedules, and
- Quality assurance for support services.

At South Bank University, approach adopted for TQM includes determine customer requirements, agree quality goals, analyze and review current performance, identify gaps, owners and priorities for action; design and implement improvement plans; review implementation plans against objectives; assess achievement of quality goals; ensure gains are held; evaluate/identify successes and lessons; review commitment and focus and prelaunch. Customer Supplier Working Groups have been constituted for the purpose (Geddes, 1993).

At Aston University, the approach taken has been distilled into the phrase ‘Quality driven-demand’. The major projects undertaken include academic restructuring and providing high quality support infrastructure. Quality council has been formed to review University’s processes and critical success factors in order to identify areas of improvement. During the initial stage, extensive training was provided (Clayton, 1993).

Malhotra (1993) proposed a set of strategic actions for building total quality in the polytechnic education for training and retraining of quality technicians and technician engineers. The suggested strategic actions include (a) clear strategy for polytechnics, (b) curriculum development, (c) building relevance of curriculum, (d) improving instructional effectiveness, (e) evaluation and certification, (f) optimization of resources, (g) accountability/ accreditation and quality assurance, (h)
industry as equal partner, (i) research and innovation, (k) autonomy, and (l) building strong work culture.

On the basis of the analysis of the initiatives taken by the universities abroad and suggested approaches, the following approach (Fig.1) for total quality management is suggested:

- Identifying customers needs
- Specifying quality standards
- Benchmarking
- Identifying gaps in the existing system
- Planning for improvement
- Implementation of improvement plans
- Monitoring and evaluation, and
- Modification of plans.
1. **Identifying Customer Needs:** First of all, identification of customers – both internal and external – has to be done and their needs are to be ascertained. For example, students, paper-setters, examiners, outside organisations etc. and in case of teaching, students are the only customers.

2. **Specifying Quality Standards:** Key processes for satisfying customer’s needs should be identified for each department/unit. Agreement on quality standards for various processes among the suppliers and customers have to be obtained.

   For working out standards, different groups for different departments/units can be formed involving the people directly related to that work. Quality standards are not something static but dynamic. So, standards need to be reviewed and changed overtime.

3. **Benchmarking:** Quality benchmarks are the means of measuring how well a supplier meets the specified quality standards (Geddes, 1993). For example, in case of teaching one of the quality standard is ‘classes will start at scheduled time’ and quality benchmark is ‘95% of all classes will start at scheduled time’.

   Quality standards and benchmarks need to be disseminated among the concerned people.

4. **Analysing the Existing System:** The existing system should be analysed in the light of the quality benchmarks specified for various processes in order to identify the gaps and prioritise action areas.

5. **Planning for Improvement:** Improvement plans need to be prepared keeping in view the contextual factors existing with in the department/unit. Plant should clearly indicate aims/objectives of improvement, strategy to be adopted, roles and responsibilities of various personnel, monitoring and evaluation procedure, and organising resources.

6. **Implementation of Improvement Plans:** This stage involves actual carrying out of the activities as per improvement plans. Implementation requires team-building, total commitment of people and top management support.

7. **Monitoring and Evaluation:** Monitoring of progress towards achievement of objectives of the improvement plan or quality standards should be done by a team constituted for the purpose. On the basis of information gathered, make necessary modifications in the plan or take necessary actions to facilitate implementation of plan. Evaluation needs to be carried out to determine the extent to which improvement objectives have been achieved. Feedback from the concerned faculty,
staff and students or external customers should be obtained to ascertain their perceptions or reactions towards the improvements made in various processes.

8. Modification of Plans: On the basis of evaluation and feedback received needed modifications in the improvement plans should be made.

8.7 TQM PROCESS

The product-based TQM Model views a university or an institution as a producer, which transforms inputs into outputs through a transformation process. This model follows a production analogy. The production system of a university or an institution is shown in figure 2.

Fig. 2: Product-based TQM Model

![TQM Model Diagram]

Inputs:

Inputs are the resources combined to produce outputs through a transformation processes. In higher education the term input can take the form of any of the five resources: people, material, equipment, method and environment.

Fig. 3: Inputs in Higher Education

- People
- Material
- Equipment
- Method
- Environment

The input of people includes students with potential capability who get admission to graduate and postgraduate courses in institutions and universities. The input of students is obtained from a variety of sources, but the major source of supply is still the pre-university and degree institutions. For three-year degree courses such as B.A., B.Com., B.Sc. suppliers are the pre-university institutions which run two-year Pre-university courses, or schools which run 10+2 courses. For two-year postgraduate courses such as M.A, M.B.A., M.Com., M.Sc., suppliers are the institutions, which run three-year degree courses. For research programmes such as the M.Phil., and Ph.D., suppliers are the institutions or the departments of the universities which run the two-year postgraduate courses. Thus, every institution or university is both a supplier of student inputs and also customers for them. The input of people also includes services of teaching and non-teaching staff who are working for the
education organisation including those who work in administrative and managerial position in institutions and universities.

The input of materials include the books and journals which are used by the students for acquiring new knowledge and skills through study, interaction, evaluation, experience and innovation in graduate and postgraduate courses. Faculty and staff also use books and journals for education delivery in the classroom, research, training and development. Equipment might be the personal computers, overhead projector and LCD projector for education delivery and research. Methods refer to the different modes of instructional approaches used for effective learning to take place. Methods also include statistical methods used for managing education quality. The input of environment includes learning environment for students, teaching and research environment for faculty, and working environment for staff.

**Process:**

In its simplest form, a ‘process’ is a blending or a transformation of inputs such as people, materials, equipment, methods and environment into outcomes (Scherkenbach 1992). Some of these inputs do the transforming and some of them are transformed. The transformation process in higher education involves imparting education to the students in the graduate courses or postgraduate courses by combining people, learning environment. Processes in higher education are people-dominant. The people such as students, faculty and staff contribute the most to the variability of the outcomes in higher education.

**Output:**

The term ‘output’ can take the form of any or all the four outcomes; educated graduates, postgraduates and doctorates, the discovery of new knowledge through research, rediscovery and preservation of past knowledge through scholarship and professional and public services by faculty and staff.

<table>
<thead>
<tr>
<th>Education</th>
<th>Educated graduates, postgraduates and doctorates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>The discovery of new knowledge</td>
</tr>
<tr>
<td>Scholarship</td>
<td>The rediscovery and preservation of past knowledge</td>
</tr>
<tr>
<td>Service</td>
<td>Professional and public service by faculty and staff</td>
</tr>
</tbody>
</table>

The definition of customer in higher education is not free from criticisms. The critics criticised on the ground that, higher educational institution is not a factory, the students are not the product, but their education is the product (Myron Tribus 1993).
Cole (1995) concluded that the application of Total Quality Management has resulted in improvement process in optimizing job definition and improving recruitment technologies, creating better alignment between faculty needs and expectations. Yudof and Busch Vishniac (1996) have found three significant potentialities that Total Quality Management can offer to education:

- Total Quality Management offers a justification and a technique for the continuous search for quality and excellence.
- It develops willingness and hence a culture for change related to that, organisations learn to be more flexible and responsive and
- Total Quality Management makes qualitative shifts in decision-making.

Check your progress: 8

Note: a) Write down your answers in the space given below.
   b) Compare your answers with those given at the end of the unit.

1. List out any four main components of TQM?
UNIT 9 - ACADEMIC AUDIT

9.1 INTRODUCTION

Academic audit is an educational exercise to assess and evaluate the performance of teachers and to have a pragmatic view about what is the present status of academic standards. This exercise can help in measuring the true performance and contributions of every teacher on a regular basis as well as to guide him about the areas where further improvement is needed. The ultimate purpose of academic audit is to bring improvement in the performance through techniques of motivation and control.

9.2 OBJECTIVES

After going through this unit, you should be able to

- Identify the Basic Objectives of Academic Audit
- Discuss the Role of Educational Planners
- Discuss the Advantages of Academic Audit
- Discuss the Accreditation and Academic Audit

9.3 BASIC OBJECTIVES OF ACADEMIC AUDIT

- To establish a goal oriented performance appraisal system in educational institutions.
- To remove bias, prejudices and subjectivism in the method of performance evaluation.
- To bring out a high level of transparency in the academic evaluation.
To introduce an invisible but effective mechanism of educational control.
To motivate teachers to contribute extensively for improvement of educational standards and development of academic culture.
To create a suitable structure of evaluation that can lead to the development of a transparent, objective and positive way of evaluation of performance for establishing a suitable reward-incentive system.

9.4 ROLE OF EDUCATIONAL PLANNERS

Academic audit is an evaluation system which not only intends to evaluate the performance of teachers but at the same time it throws light on academic culture in an educational institution. It not only tells as to what a teacher has done in an academic year, but at the same time explains how educational institutions and planners have helped the teachers in achieving their desired target. The educational planners can establish an ideal academic audit system after considering the following factors:

- The nature of the institution.
- The type of academic activities and performance of the institution.
- Courses and educational programmes conducted by the institution.
- Qualifications and standards of teachers.
- Type of infrastructural facilities available in the institution.
- Nature of job profile.
- Various conditions governing the education activity.
- Facilities available for research, extension and development activities in the institution.
- Linkages with other institutions of national repute.
- Facility of re-training and refresher programme provided to the teachers.

9.5 ADVANTAGES OF ACADEMIC AUDIT

Academic audit is a unique tool with many advantages. It can help the educational planners, heads of institutions, educational policy makers as well as the teachers to understand the strengths and weaknesses of the existing educational system. The academic audit helps in various ways to have a rational performance appraisal of the teacher. The following diagram explains how academic audit can work in performance improvement:

Academic Audit as Tool →
- Regular teaching and educational advancement
- Career advancement
- Professional excellence
- Enhancing quality standards

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9.6 ACCREDITATION AND ACADEMIC AUDIT

The concept of accreditation is the result of growth in the quantitative size of education institutions without much consideration to the qualitative aspects. The continuous downfall of quality in the field of education is a matter of concern not only for the planners but also for the whole nation. Unless and until attention is paid to the qualitative aspects of education, there is no hope for improvement of economy and technology. The exercise of accrediting an institution of higher learning by using standard norms and parameters is the right step for upgrading educational quality. It can help in improving the basic structure of education, introduce the suggested policy measures in practice and motivate the teachers as well as educational planners to install the right level of educational excellence.

The question of parity, uniformity and equality can also be rightly answered if the concept of accreditation is properly introduced. Accreditation and Assessment is one such measure, which can remove bias and introduce an impartial mechanism of educational evaluation. Through accreditation of educational institutions, the process of continuous performance evaluation of teachers can also be achieved. The concepts like “GOPAS” (Goal Oriented Performance Appraisal System) that are popular in business houses can also be introduced for evaluation of teachers in universities and other institutions of higher learning.

The University Grants Commission has laid down many suggestive norms for performance evaluation of the teachers. However, at present there is no uniformity of norms so far as the evaluation of teachers in different universities are concerned. Every university has its own mechanism and system of evaluation. This results in the introduction of uneven standards of performance, measurement, lack of transparency and an element of bias. It will be appropriate at this juncture to introduce uniform and even norms of evaluation. This can be done rightly, if the concept of academic audit is adopted.

Check your progress: 9

Note: a) Write down your answers in the space given below.

b) Compare your answers with those given at the end of the unit.

1. Write down any three basic objectives of academic audit.
Quality issues in Education

NOTES

Academic Audit of Teachers
(A proforma to be filled-in by teachers annually)

1) Name :
2) Position held :
3) Previous position :
4) For how many years you are
   working on the present position? :
5) Academic performance :

   (A) Teaching:

<table>
<thead>
<tr>
<th>Workload as per norms</th>
<th>Periods/ week</th>
<th>Actual work done</th>
<th>Whether more than norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Teaching</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Practicals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Guidance to researchers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Guidance to P.G. students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Extension activities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   (B) Publications (Magazines & Journals)

   Detail out your contribution in the areas given in the boxes
   (enclose copies)

   Newspapers journals  Popular magazines  Research
   [ ]                  [ ]                [ ]

   (C) Publications (Text Books and References)

   Detail out your contribution in the areas given in the boxes
   (enclose copies)

   Text books  Reference books  Popular books
   [ ]        [ ]               [ ]
6) Research

(1) Your independent research projects
   (a) Completed during the years
   (b) Continued during the years
   (c) Project in the primary stage of commencement

(2) Research conducted under your guidance – Ph.D. M.Phil.
   a) No. of students registered for Ph.D./M.Phil.
   b) No. of students who have completed doctoral work
   c) No. of students who have submitted their Summary for evaluation

(3) Departmental level research work –
   a) No. of students under your guidance for P.G. Programme dissertation
   b) Any other research undertaken at the departmental level

(4) Minor research projects
   a) Project funded by U.G.C./ any other body
   b) Year when sanctioned/ amount
   c) Stage of completion
   d) No. of minor research project completed till this time

(5) Major Research Projects
   a) Projects funded by – UGC/ ICSSR/ ICAR/ DST etc.
   b) Year when sanctioned/ Amount
   c) Stage of completion
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NOTES

d) No. of major projects completed

(6) Any other kind of research with activity – Consultancy, Advisory, and Consultative Activities

a) Consultancy offered as expert to a professional/industrial organisation

b) Consultancy offered as expert to any other institution/agency.

c) Worked as advisor, member of any committee of the University (BUTR, BCUD, BOS, BOE, NAAC) etc.

d) Worked as expert/for interview/assessment/guidance

e) Worked as a Member of any Committee for examinations of other university

f) Worked as a Member of any Committee for examination of the university

g) Membership of professional bodies

h) Membership of libraries/academic bodies

7) Table giving details of research activities

1) Independent

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Nature of enquiry</th>
<th>Area</th>
<th>Scope</th>
<th>State of completion</th>
</tr>
</thead>
</table>

2) Research conducted under your guidance for Ph.D./M.Phil.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the research student</th>
<th>M.Phil./Ph.D.</th>
<th>State of research</th>
<th>No. of completion submitted</th>
</tr>
</thead>
</table>

3) (a) Departmental level research enquiry for Dissertation

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Nature of work</th>
<th>As per norms</th>
<th>Actual</th>
</tr>
</thead>
</table>

(b) Any other research enquiry

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Nature of enquiry</th>
<th>Purpose</th>
<th>Undertaken when</th>
<th>since</th>
</tr>
</thead>
</table>
4) Details of minor research enquiry

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of enquiry</th>
<th>Funded by which agency</th>
<th>Grants received</th>
<th>Time frame of completion</th>
</tr>
</thead>
</table>

5) Contribution in Administration of Institutions/ Departments

(a) Do you help the Principal/HOD in management of the following activities?

(i) Admission Nature of work
(ii) Test and evaluation
(iii) Extra moral activities
(iv) Extra curricular activities
(v) General administration
(vi) Sports
(vii) Grants, Projects, Research
(viii) Laboratory management
(ix) Discipline
(x) Academic excellence

(b) Do you help the university in the following activities?

i. Membership of BOE, BOS, BUTR, BCUD, DRC –
ii. Membership of SEC
iii. Membership of Evaluation Committee
iv. Membership of Sports, Mural, Curricular Bodies

(c) Innovative Teaching Techniques

(i) Do you undertake activities to popularize your subjects?

- Wall paper
- Display boards
- Special display of lead event
- Newspaper clips
- Celebration of special day
- Contests and competition

(ii) Do you encourage students to think in diversified ways?
(iii) Do you make special efforts to popularize your subject by arranging exhibition etc.?

(6) Extension Work

(i) Worked for any social organisation.

(ii) Membership of social organisation (Rotary, J.C. Garden Club)

(iii) Delivered lectures

a) Own university

<table>
<thead>
<tr>
<th>Refresher</th>
<th>Orientation</th>
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</table>

b) Other university

<table>
<thead>
<tr>
<th>Refresher</th>
<th>Orientation</th>
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</table>

c) P.G. Depts

d) Competitive Exam.

e) Adult

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</table>

f) Other Institutions
g) Popular Lecture

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h) Invited Talk

<p>| |</p>
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</table>

i) Keynote address at Conferences

(iv) Contributed in Social Activities

Worked for Social Course – Tree plantation, Social forestry, Wildlife, Eye donation, Family planning, Blood donation etc.

(v) Contribution for Social Awakening

(i) Organised various camps

(ii) Participation in various such schemes of Central/ State Govt/ UGC

(vi) Consultancy Work

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Agency to whom consultancy offered</th>
<th>Nature of consultancy</th>
<th>Fees received</th>
<th>Time frame completion</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

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#### NOTES

#### (vii) Advisory Work

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Worked as member advisor of any body</th>
<th>Nature of Committee</th>
<th>Nature of work done</th>
<th>Time frame of work</th>
</tr>
</thead>
</table>

#### (viii) Expertise offered

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Worked as expert for any specific field</th>
<th>Nature of assignment</th>
<th>Type of expertise</th>
<th>Period of service offered</th>
</tr>
</thead>
</table>

#### (ix) Extension work done

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Membership of Social/ NGO</th>
<th>Activities undertaken</th>
<th>Position held</th>
<th>Awards, Acclamation, Recognition</th>
</tr>
</thead>
</table>

#### (x) Popular and extension lectures

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of organisation</th>
<th>No. of lectures</th>
<th>Nature of invitation to delivery lecture</th>
</tr>
</thead>
</table>

#### (xi) Organisation of various Activities

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Activity</th>
<th>Level of participation</th>
<th>Duration</th>
<th>Place</th>
</tr>
</thead>
</table>
8) **Personality Development of Students**

(i) Distribution of hand outs of notes

(ii) Undertaken various competitions in the class-room. Essay, Quiz, Presentations, Seminars, G.D. Demonstration.

(iii) Offers guidance for communication skills, presentations skills, technical competence improvement.

(iv) Undertaken the following inter departmental activities:

- a) Quizes
- b) Essay Competitions
- c) Special Celebrations – Science Day, Library Day
- d) Noteworthy Joint Activities
- e) Workshops, Guidance Activities
- f) Inter Department Competition

(v) Organised Inter Collegiate Activities (Sports meets, Tournaments, Festivals)

(vi) Organised intra-university/ inter university Activities.

- a) Quiz
- b) Wall paper
- c) Demo
- d) Display of Special topic
- e) Workshop
- f) Seminar
- g) Special Guidance

(vii) Intra Departmental/ Collegiate Activities.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Activity</th>
<th>Level</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

(viii) Special guidance for skills improvement

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Skills</th>
<th>Level</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Computation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Programming</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Presentation
5. Technical
6. Competence

(ix) Organised intra-collegiate, inter-collegiate/ Institute activities.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Nature of activities</th>
<th>Level</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tournament</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Sports events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Festivals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Quizes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Competition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9) **Seminars, Conferences, Workshops**

(1) Participated in Workshops/ Seminar/ Conference
   (i) District Level
   (ii) State
   (iii) National
   (iv) International

(2) Whether such participation was sponsored by UGC/ any other body/ your own contribution?

(3) Have you been member of organising Committees of such Seminars/ Workshops etc.?

(4) Which Seminar/ Workshop was organised by your Institution/ Deptt/ Instt.?
   - District
   - State
   - National

(5) Have you participated in Winter/ Summer School Refresher/ Orientation Programme?
Quality issues in Education

(6) Organisation of Seminars, Workshops, Conferences

<table>
<thead>
<tr>
<th>Level</th>
<th>Seminar/Workshop</th>
<th>Type of participation</th>
<th>Duration</th>
<th>Paper title, if any</th>
</tr>
</thead>
</table>

| District | State | National |

(7) Academic Excellence of genius/ depressed students

(i) Do you take special efforts to guide exceptionally genius students?

(ii) What kind of guidance you give?

(iii) Do you undertake special coaching classes for SC/ST and depressed class students?

(iv) Do you offer special guidance to girl students?

(v) Do you organise special coaching classes for NET, SET, TEM, TOEFEU, GATE, GMAT, GRE?

(vi) Do you arrange special lectures on topics of current interest?

10) Membership

A) Are you member of professional/ academic associations?

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of membership</th>
<th>Since when</th>
<th>Activities undertaken</th>
</tr>
</thead>
</table>

B) Are you member of different libraries?

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of membership</th>
<th>Since when</th>
<th>Activities undertaken</th>
</tr>
</thead>
</table>
C) Are you member of an NGO promoting social cause?

<table>
<thead>
<tr>
<th>Name</th>
<th>Nature of membership</th>
<th>Since when</th>
<th>Activities undertaken</th>
</tr>
</thead>
</table>

D) Are you member of cultural/educational institutions promoting regional, cultural activities and heritage?

11) **Reading habits and journals**

   A) Do you have your personal library?
   B) Do you prefer to buy books related to your topics of interest?
   C) Do you subscribe to journals and magazines of your subject area?

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of journals</th>
<th>Nature of subscription</th>
</tr>
</thead>
</table>

12) **Awards won for your contribution**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Award</th>
<th>Purpose or area of excellence</th>
<th>Institution conferring award</th>
</tr>
</thead>
</table>

9.7 **LET US SUM UP**

The process of globalization has made educational sector open to various institutions of higher learning from the developed countries. Such institutions can now sell their educational programs in India. These institutions have reputation and recognition in the entire world. If Indian institutions and universities have to survive in this competitive world, it is essential that there should be an unbiased and rational assessment of the strengths and weaknesses of such universities. Academic audit will provide a suitable and appropriate technique for evaluation of the strengths and weaknesses of the faculty members in universities in particular, and the overall educational system in general.
9.8 UNIT END EXERCISES

1. What is an academic audit? What are its objectives and benefits?
2. Discuss the Role of Educational Planners
3. Discuss the Advantages of Academic Audit
4. Discuss the Accreditation and Academic Audit

9.9 ANSWERS TO CHECK YOUR PROGRESS

1. To bring out a high level of transparency in the academic evaluation, to introduce an invisible but effective mechanism of educational control, to establish a goal oriented performance appraisal system in educational institutions.

9.10 SUGGESTED READING

UNIT 10 - QUALITY IN GLOBAL PERSPECTIVE

Structure
10.1 Introduction
10.2 Objectives
10.3 Global standards
10.4 Strategies for matching global standards
   10.4.1 Types of strategic alternatives
   10.4.2 Strategy Formulation and Implementation
   10.4.3 Tasks Involved
10.5 SWOT analysis
   10.5.1 Evaluating an Organization’s Strengths
10.6 Models of quality assessment
10.7 Accreditation-International practice
   10.7.1 International Network for Quality Assurance Agencies in Higher Education (INQAAHE)
   10.7.2 Mechanisms of Quality Assurance
10.8 Let us sum up
10.9 Unit end exercises
10.10 Answers to check your progress
10.11 Suggested Reading

10.1 INTRODUCTION

Globalisation of higher education is today being promoted in all countries because of the academic, social, political and economic advantages that accrue from it. It promotes values and culture, generates goodwill, enriches the teaching-learning process and thereby enhances the quality of education, encourages competitiveness and helps generate financial resources. One may add that globalisation of higher education is now a fact of life that cannot be neglected.

Globalisation of trade and economy are taking deep roots in most developing countries. Quality human resources are, therefore, an important base with which to respond to the emerging environment. The knowledge workforce in particular has a vital role to play in the emergence of the digital economy. India has the second largest education system in the world. Just as other parts of the world have their natural resources in crude oil, or in diamonds, India’s natural resource lies in its abundant technically skilled manpower and knowledge workers. And this resource easily transforms India into an IT software and services superpower. Higher education in India is of an international standard and globally recognized.
Over the past few years, there has been a gradual increase in the numbers of foreign students aspiring to study in Indian educational institutions. India has the potential to become an educational hub, attracting foreign students from Asia, Africa and the Middle East.

It also has the potential to share in the global education market by supplying teachers, by developing distance learning products and by providing educational services both within and outside the country. In fact there has been an increase in the number of Indian institutions setting up campuses in select overseas countries.

### 10.2 OBJECTIVES

After going through this unit, you should be able to

- Discuss the Strategies for matching global standards
- Define SWOT
- Models of quality assessment
- Discuss the International practices of accreditation

### 10.3 GLOBAL STANDARDS

In the competitive world, global standards have to be matched. But it is really a challenging task and specific strategies have to be evolved.

The challenges are: (i) Where to start? (ii) What is to be improved upon? (iii) How can we get the cooperation of stake-holders? (iv) How to meet the differently endowed children/ students? (v) How to monitor and correct the whole system functioning?

(i) **Where to start?** This is to foremost question. Should we start from 1\textsuperscript{st} standard and move upward or start at the middle, say higher secondary education or at collegiate level? Starting from 1\textsuperscript{st} standard will yield results in the long-run. So we can do that. Meantime, for quick results we can start at intermediate level or collegiate level as well.

(ii) **What is to be improved upon?** The syllabi, the admission eligibility, the evaluation, the teachers, the tools, the facilities, the environment and the support by stake-holders, all have to be improved. We cannot address one element and leave the rest.

(iii) **How can we get the cooperation of stake-holders?** There are many stakeholders. The union and provincial governments, the administrative machinery (i.e. the Boards for Examination for School Education and Higher Secondary Education, the Directorate of Collegiate Education, the Universities, the UGC, the AICTE, the NAAC, etc), the students, the teachers, the parents etc. are all stakeholders. This is a composition of diverse elements. Eliciting their cooperation is a difficult thing. But efforts must be started off.
(iv) **How to deal with differently endowed children?** We must keep abreast of the varied skills of people. One level of curriculum will not meet the needs of every one. You can have two or three levels (gradations in the syllabi) up to 10th standards – one for the highly endowed children and the other for the less endowed children and an intermediate level for the moderately endowed children. From VI standard to X standard, the differences between the 2 or 3 levels must become vastly reduced. At higher secondary level there must be only two levels – ‘A’ level and ‘B’ level. And here too the shades of difference must not be thicker. By the time, +2 study is over, there should be great degree of comparability of standards. At collegiate level there must be one level or grade. As a result, by the time when a person graduates with first degree, he/she must be as endowed as others. National level curricula must be prepared from I standard to PG studies for different levels, as applicable. The autonomous institution alternative can be used for the superior lot of collegiate students.

(v) **Minority and Control:** This is the most important issue. The system of localized control and evaluation of the system up to primary school, District level control for VI to X standards, State level control XI & XII standards, Regional level control for undergraduate courses and national level control for postgraduate courses must be evolved. There must be Government control mechanism as well as Non-Government control mechanism, independent of each other. Any discrepancy between the ratings must be sorted out and proved, if need be.

### 10.4 STRATEGIES FOR MATCHING GLOBAL STANDARDS

A **strategy** is a comprehensive plan for accomplishing an organization’s goals. **Strategic management**, in turn, is a way of approaching business opportunities and challenges – it is a comprehensive and ongoing management process aimed at formulating and implementing effective strategies. Finally, **effective strategies** are those that promote a superior alignment between the organisation and its environment and the achievement of strategic goals.

**The Components of Strategy**

In general, a well-conceived strategy addresses three areas: distinctive competence, scope and resource deployment. A **distinctive competence** is something the organisation does exceptionally well.

The **scope** of a strategy specifies the range of markets in which an organisation will compete.

A strategy should also include an outline of the organization’s projected **resource deployment** – how it will distribute its resources across the areas in which it competes.
10.4.1 Types of strategic alternatives

Most business today also develop strategies at two distinct levels. These levels provide a rich combination of strategic alternatives for organisations. The two general levels are business strategies and corporate strategies. Business-level strategy is the set of strategic alternatives that an organisation chooses from as it conducts business in a particular industry or a particular market. Such alternatives help the organisation focus its competitive efforts for each industry or market in a targeted and focused manner.

Corporate-level strategy is the set of strategic alternatives that an organisation chooses from as it manages its operations simultaneously across several industries and several markets.

10.4.2 Strategy Formulation and Implementation

Drawing a distinction between strategy formulation and strategy implementation is also instructive. Strategy formulation is the set of processes involved in creating or determining the strategies of the organisation, whereas strategy implementation is the methods by which strategies are operationalized or executed within the organisation. The primary distinction is along the lines of content versus process: the formulation stage determines what the strategy is, and the implementation stage focuses on how the strategy is achieved.

Sometimes the process of formulating and implementing strategies is rational, systematic and planned. This approach is often referred to as a deliberate strategy – a plan that is chosen and implemented to support specific goals.

Other times, however, organisations use an emergent strategy – a pattern of action that develops over time in an organisation in the absence of missions and goals, or despite missions and goals. Implementing emergent strategies involves allocating resources even though an organisation has not explicitly chosen its strategies.

10.4.3 Tasks Involved

- Ascertain global standards in education at all levels (primary to university) as these prevail in different countries.
- Search for benchmark standards from one or more countries for primary to university.
- Thoroughly evaluate the benchmark requirements.
- Choose the benchmark for each level of education.
- Compare our standards with the benchmarked ones in all dimensions.
- Find the gaps and assess the significance.
- Search alternative means of filling up the gaps.
- Evaluate the alternative means of filling up the gaps.
- Pick-up the right means given its distinctive relative merits.
• Implement the changes required.
• Review the impact of changes introduced in bridging the gap.
• Act on the basis of the review done in further removing the gaps between our realised standards and the benchmarked standards.

10.5 SWOT ANALYSIS

The starting point in formulating strategy is usually SWOT analysis. SWOT is an acronym that stands for strengths, weaknesses, opportunities and threats. As shown in figure, SWOT analysis is a careful evaluation of an organization’s internal strengths and weaknesses as well as its environmental opportunities and threats. In SWOT analysis, the best strategies accomplish an organisation’s mission by (1) exploiting an organization’s opportunities, strengths while (2) neutralizing its threats and (3) avoiding (or correcting) its weaknesses.

Mission
An organisation’s fundamental purpose

SWOT Analysis
To formulate strategies that support the mission

<table>
<thead>
<tr>
<th>Internal Analysis</th>
<th>External Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td>Strengths</td>
</tr>
<tr>
<td>(distinctive competencies)</td>
<td>Opportunities</td>
</tr>
</tbody>
</table>

Weaknesses

<table>
<thead>
<tr>
<th>Good Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Those that support the mission and</td>
</tr>
<tr>
<td>1. exploit opportunities and strengths</td>
</tr>
<tr>
<td>2. neutralize threats</td>
</tr>
<tr>
<td>3. avoid weaknesses</td>
</tr>
</tbody>
</table>

10.5.1 Evaluating an Organization’s Strengths

Organisational strengths are the skills and capabilities that enable an organisation to conceive of and implement its strategies. Different strategies call on different skills and capabilities.
SWOT analysis divides organisational strengths into two categories: common strengths and distinctive competencies. A **common strength** is an organisational capability possessed by a large number of competing firms. A **distinctive competence** is a strength possessed by only a small number of competing firms.

Distinctive competencies are rare among a set of competitors. Organisations that exploit their distinctive competencies often obtain a **competitive advantage** and attain above-normal economic performance. Indeed, a main purpose of SWOT analysis is to discover an organization’s distinctive competencies so that the organisation can choose and implement strategies that exploit its unique organisational strengths.

An organisation that possesses distinctive competencies and exploits them in the strategies it chooses can expect to obtain a competitive advantage and above-normal economic performance. However, its success will lead other organisations to duplicate these advantages. **Strategic imitation** is the practice of duplicating another firm’s distinctive competence and thereby implementing a valuable strategy. This explains why Gatorade has faced increased competition in recent years.

Although some distinctive competencies can be imitated, others cannot be. When a distinctive competence cannot be imitated, strategies that exploit these competencies generate sustained competitive advantages. A **sustained competitive advantage** is a competitive advantage that exists after all attempts at strategic imitation have ceased.

Finally, a distinctive competence can be difficult to imitate if it is based on complex social phenomena, like organisational teamwork. Competing organisations may know that a firm’s success is directly traceable to the teamwork among its managers but, because teamwork is a difficult thing to create, may not be able to imitate this distinctive competence.

**Organisational weaknesses** are skills and capabilities that do not enable an organisation to choose and implement strategies that support its mission. An organisation has essentially two ways of addressing weaknesses. First, it may need to make investments to obtain the strengths required to implement strategies that support its mission. Second, it may need to modify its mission so that it can be accomplished with the skills and capabilities that the organisation already possesses.

In practice, organisations have a difficult time focusing on weaknesses, in part because organisation members are often reluctant to admit that they do not possess all the skills and capabilities needed. Evaluating weaknesses also calls into question the judgment of managers who choose the organization’s mission in the first place and who failed to invest in the skills and capabilities needed to accomplish it. Organisations that fail either to recognize or overcome their weaknesses are likely to suffer from competitive disadvantages. An organisation has a **competitive**
disadvantage when it is not implementing valuable strategies that are being implemented by competing organisations. Organisations with a competitive advantage can expect to attain below-average levels of performance.

Organisational opportunities are areas that may generate higher performance. Organisational threats are areas that increase the difficulty of an organization’s performing at a high level.

In the case of education administration, the institution concerned must do SWOT analysis of all its constituents, namely the students, teachers, administrators and parents in relation to matters that have bearing on quality of education. The strengths of the system must be improved and their weaknesses nullified or reduced. The opportunities must be created and exploited and threats must be shared, shifted or head-on taken up.

### 10.6 MODELS OF QUALITY ASSESSMENT

As there are different meanings and interpretations of quality, there are different models of quality assurance as well. Across the world, institutions follow different models of quality assurance; particularly country specific and institution specific models. These models are mostly process oriented and emphasize on the development of a system of quality assurance. There are five popular models of quality assurance:

i) Baldrige Criteria

ii) ISO 9000-2000

iii) Capability Maturity Model

iv) Six Sigma; and

v) Total Quality Management.

Let us discuss each of these in detail to get an overview so as to have an understanding of different models and criteria adopted in these models. We will also look into accreditation models of ABET, NBA, NAAC, AB of ICAR and DEC.

i) **Baldrige Criteria**

In the United States of America, the Malcolm Baldrige National Quality Award is the highest award for performance excellence managed by the National Institute of Standards and Technology (NIST). The American Society for Quality assists in the administration of the award. In order to promote quality awareness and recognize quality achievements, the Congress established this award in the year 1987.

The education criteria for performance excellence are designed to help organizations use an integrated approach to organizational performance management that results in:

- Delivery of ever-improving value to students and stakeholders, contributing to education quality;
Quality issues in Education

NOTES

- Improvement of overall organizational effectiveness and capabilities; and
- Organizational and personal learning (NIST, 2005).

The 2005 criteria for performance excellence in education have seven major categories and several sub-categories that primarily focus on learner-centred excellence. These are summarized along with the point values/weight as follows:

### Baldrige Criteria for Performance Excellence in Education

<table>
<thead>
<tr>
<th>2005 Categories</th>
<th>Point value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leadership</td>
<td>120</td>
</tr>
<tr>
<td>1.1 Senior Leadership</td>
<td>70</td>
</tr>
<tr>
<td>1.2 Governance and Social Responsibility</td>
<td>50</td>
</tr>
<tr>
<td>2. Strategic Planning</td>
<td>85</td>
</tr>
<tr>
<td>2.1 Strategy Development</td>
<td>40</td>
</tr>
<tr>
<td>2.2 Strategy Deployment</td>
<td>45</td>
</tr>
<tr>
<td>3. Students, Stakeholder and Market Focus</td>
<td>85</td>
</tr>
<tr>
<td>3.1 Student, Stakeholder, and Market Knowledge</td>
<td>40</td>
</tr>
<tr>
<td>3.2 Student-Stakeholder Relationships and Satisfaction</td>
<td>45</td>
</tr>
<tr>
<td>4. Measurement, Analysis and Knowledge Management</td>
<td>90</td>
</tr>
<tr>
<td>4.1 Measurement, Analysis and Review of Organizational Performance</td>
<td>45</td>
</tr>
<tr>
<td>4.2 Information and Knowledge Management</td>
<td>45</td>
</tr>
<tr>
<td>5. Faculty and Staff Focus</td>
<td>85</td>
</tr>
<tr>
<td>5.1 Work Systems</td>
<td>35</td>
</tr>
<tr>
<td>5.2 Faculty and Staff learning and Motivation</td>
<td>25</td>
</tr>
<tr>
<td>5.3 Faculty and Staff Well-being and satisfaction</td>
<td>25</td>
</tr>
<tr>
<td>6. Process Management</td>
<td>85</td>
</tr>
<tr>
<td>6.1 Learning-Centred Processes</td>
<td>45</td>
</tr>
<tr>
<td>6.2 Support Processes and Organizational Planning</td>
<td>40</td>
</tr>
<tr>
<td>7. Organizational Performance Results</td>
<td>450</td>
</tr>
<tr>
<td>7.1 Student Learning Results</td>
<td>100</td>
</tr>
<tr>
<td>7.2 Student and Stakeholder Focused Results</td>
<td>70</td>
</tr>
<tr>
<td>7.3 Budgetary, Financial and Market Results</td>
<td>70</td>
</tr>
</tbody>
</table>
A brief description of the categories is as follows (NIST, 2005):

- **Leadership**: The leadership category examines how an organization’s senior leader guides and sustains the organization. The way an organization’s governance addresses the ethical, legal and public responsibilities is also examined.

- **Strategic Planning**: In this category an organization’s strategic objectives and action plans are examined. It also analyses how strategic objectives and action plans are deployed, changed and progress is measured.

- **Student, Stakeholder, and Market Focus**: This category examines how an organization determines the requirements, expectations, and preferences of students, stakeholders, and markets. Also of interest here is the relationship with students and stakeholders. Factors that attract students and lead to student and stakeholder satisfaction and loyalty are also examined.

- **Measurement, Analysis and Knowledge Management**: This category examines how an organization selects, gathers, analyses and improves its data, information and knowledge assets. It also examines how the organization reviews organizational performance.

- **Faculty and Staff Focus**: This category examines an organization’s work system to facilitate high performance, learning and motivation. Also examined are the organization’s efforts to build and maintain a work environment and faculty and staff support climate conducive to performance excellence and to personal and organizational growth.

- **Process Management**: This category focuses on the process management of the organization including key learning-centred processes in the educational programmes, offerings and services available to the students. It also examines the key support processes.

- **Organizational Performance Results**: This is the category of results that examines an organization’s performance and improvements in key areas – student learning, results, budgetary provisions, faculty and staff results, leadership and social responsibility.
Quality issues in Education

The ISO approved guidelines for the application of ISO 9001: 2000 in education in October 2002 in Acapulco, Mexico in the International Workshop Agreement (IWA 2) that assists educational organizations in providing educational products in conformity with ISO 9001: 2000. It re-affirms, “The quality management system should be the simplest one that works well. It need only be comprehensive enough to meet the quality objectives for the educational organization. Quality control is an essential process in a quality management system. Accurate measurement is not easy when assessing human performance, and appraisal is usually conducted during the educational process” (ISO, 2003). The ISO 9001:2000 for educational institutions has 21 elements in four major sections: Management responsibility, resource management, product realization and measurement, analysis and improvement as shown below.

ISO 9001:2000 for Educational Organizations

1. Management responsibility
   - 1.1 Management commitment in the educational organization
   - 1.2 Customer focus in the educational organization
   - 1.3 Quality policy in the educational organization
   - 1.4 Planning
   - 1.5 Responsibility, authority and communication
   - 1.6 Management review in education sector

2. Resource management
   - 2.1 Provision of resources in the educational organization
   - 2.2 Human resources in the educational organization
   - 2.3 Infrastructure in the educational organization
   - 2.4 Work environment in the educational organization

3. Product realization
   - 3.1 Planning of product realization in the educational organization
   - 3.2 Customer-related processes
   - 3.3 Design and/or development
   - 3.4 Purchasing
   - 3.5 Production and service operation
   - 3.6 Control of monitoring/ measuring devices in educational. Organization

4. Measurement, analysis and improvement
   - 4.1 General guidance in the educational organization
4.2 Monitoring and measurement
4.3 Control of nonconformity products in the educational organization
4.4 Analysis of data in the educational organization
4.5 Improvement

The ISO 9001 and 9002 standards are meant for compliance that can be certified by an independent third party (an accreditation body approved by the ISO). Organizations interested in getting the certification contact a certification body and prove their compliance over a period of 6-8 months to the satisfaction of the agency as per the standards.

iii) Capability Maturity Model

The US Air Force funded the Capability Maturity Model (CMM) initially at the Carnegie-Mellon Software Engineering Institute. The CMM was originally intended as a tool to evaluate the ability of government contractors to perform a contracted software project. Though the model is designed for software development, it can be used in other settings as a measure to assess the maturity of the processes.

The CMM is based on the concept of ‘Key Process Areas’ that collectively achieve a set of goals important for enhancing process capability. The CMM believes that mature organizations possess an organization-wide ability for managing objective development and maintenance of processes leading to predictable quality outputs and outcomes. In immature organizations, it is difficult to predict the product quality as they are mostly reactionary (working on ad hoc basis) and managers are usually focused on solving immediate crises. The CMM is not prescriptive, but a framework to help software organizations to gain control of their processes for developing and maintaining software for excellence in engineering and management. The CMM recognizes five maturity levels as follows:

1) Initial: The software process is characterized as ad hoc, and occasionally even chaotic. Few processes are defined, and success depends on individual efforts.

2) Repeatable: Basic project management processes are established to track cost, schedule, and functionality. The necessary process discipline is in place to repeat earlier successes on a project with similar applications.

3) Defined: The software process for both management and engineering activities is documented, standardized, and integrated into a standard software process for the organization. All projects use an approved, tailored version of the organization’s standard software process for developing and maintaining software.
4) Managed: Detailed measures of the software process and product quality are collected. Both the software process and products are quantitatively understood and controlled.

5) Optimizing: Continuous process improvement is enabled by quantitative feedback from the process and from piloting innovative ideas and technologies.

In CMM, the process assessment and capability evaluations are done in six steps:

i) Selection of team members to undertake assessment and evaluation.

ii) Administration of maturity questionnaire on representative sample of the site.

iii) Analysis of the responses to identify key areas that need explanations.

iv) Site visit of the team where team members conduct interviews and review documents to judge whether the goals of key process areas are achieved.

v) Team prepares a list of findings identifying strengths and weaknesses.

vi) Team prepares a key process or profile showing where the organization has and has not satisfied the goals of the key process areas.

The CMM has been revised in 2000 and the latest one in use is called Capability Maturity Model integration (CMMI) with emphasis on integration within the organization culture.

iv) Six Sigma

‘Six Sigma’ as a quality assessment model originated at Motorola in the early 1980s. Since then, it has been used in many business establishments covering General Electric, Ford, Delphi, Texas Instruments, Sony, Polaroid, 3M, and American Express (Goffnett, 2004). Six Sigma is slowly getting into academia as teaching course, and academic institutions are also trying to apply this model for quality assessment and improvement.

Sigma (σ) is the letter in Greek alphabet used to denote standard deviation in statistics. This essentially forms the basis of Six Sigma. Its main objectives are to reduce variation and defects, increase customer satisfaction and increase profits. Six Sigma can be viewed in three different ways – a metric, a philosophy, and a methodology. As a metric, Six Sigma is a statistical expression that denotes a population’s standard deviation and is a measure of variation about mean. At six standard deviation, the defects are at 3.4 per million cases, or 99.9997 percent satisfaction or conformance to standard. This would mean, in an educational institution, at Six Sigma level there would be only 3.4 mistakes in declaration of results of one
million student appearances in examinations. A summary of Sigma level, defects per million and success rate in percentages is given below:

**Sigma Defects per million Success in percentage**

<table>
<thead>
<tr>
<th>Sigma</th>
<th>Defects per million</th>
<th>Success in percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td>3.4</td>
<td>99.9997</td>
</tr>
<tr>
<td>5.0</td>
<td>233.0</td>
<td>99.977</td>
</tr>
<tr>
<td>4.0</td>
<td>6210.0</td>
<td>99.379</td>
</tr>
<tr>
<td>3.0</td>
<td>66807.0</td>
<td>93.32</td>
</tr>
<tr>
<td>2.5</td>
<td>158655.0</td>
<td>84.1</td>
</tr>
<tr>
<td>2.0</td>
<td>308538.0</td>
<td>69.1</td>
</tr>
<tr>
<td>1.5</td>
<td>500000.0</td>
<td>50.0</td>
</tr>
<tr>
<td>1.4</td>
<td>539828.0</td>
<td>46.0</td>
</tr>
<tr>
<td>1.3</td>
<td>579620.0</td>
<td>42.1</td>
</tr>
<tr>
<td>1.2</td>
<td>617911.0</td>
<td>38.2</td>
</tr>
<tr>
<td>1.1</td>
<td>655422.0</td>
<td>34.5</td>
</tr>
<tr>
<td>1.0</td>
<td>691462.0</td>
<td>30.9</td>
</tr>
<tr>
<td>0.5</td>
<td>841345.0</td>
<td>15.9</td>
</tr>
<tr>
<td>0.0</td>
<td>933193.0</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Six sigma as a philosophy is concerned with its customer focus and creative process improvements. Six Sigma philosophy believes that there is a strong correlation between level of defects, costs and customer satisfaction. If this is spread across the organization as an inherent philosophy, people work in teams with the ultimate goal of reducing defects and aspire to reach perfection. Six Sigma as a methodology emphasizes the process of achieving the Six Sigma level. The method of Six Sigma is a systematic process covering five steps: Define-Measure-Analyze-Improve-Control. The following table describes the activities in each of these steps to achieve the Six Sigma level of quality.

**Six Sigma methodology**

<table>
<thead>
<tr>
<th>Steps</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define</td>
<td>Select projects, set goals and targets, identify the cost of poor quality, prepare the team, develop process maps</td>
</tr>
<tr>
<td>Measure</td>
<td>Develop measurement tools, standards and collect data</td>
</tr>
<tr>
<td>Analyze</td>
<td>Cause and effect diagrams, critical thinking, use statistical tools such as scatter plots,</td>
</tr>
</tbody>
</table>
The concept of Six Sigma and its methodology has a lot of significance to educational institutions. Firstly, it believes in teamwork, which is in tandem with the activities in education. The role and responsibilities of team members in Six Sigma projects are also outlined and involve people who are trained in the process. They are referred as “Black-belt” and Green-belt” holders as in the Karate sport. Thus, in order to implement and achieve a Six Sigma level, an institution needs people who are trained in the methodology of Six Sigma. The curriculum of such training is highly statistical in nature. However, Man (2002) applied the Six Sigma methodology to adult learning and concluded that institutions will benefit a lot even by application of the concept without the statistical part.

v) **Total Quality Management**

The total quality management (TQM) has evolved as an overriding concept in the field of quality in recent years. It is a philosophy that subsumes earlier methods of inspection, quality control and quality assurance. TQM assumes that quality is what the consumer of the service/product perceives. “TQM is a people driven process. It involves changes in people’s attitudes primarily. In addition, it deals with process orientation and continuous improvement of the process. It strives for empowerment and autonomy of the people involved in using production processes. It asks people to continuously look for new ways to adapt to the changing environment. It is a continuous improvement plan, with an effort to bring out the best for the stakeholders as well as for the institution” (NAAC, 2003).

The above definition/explanation of TQM has five components: customer, continuous improvement, training and development, teamwork and measurement.

- The customer can be anyone who receives or is affected by the product, process or service, and thus customer can be external or internal.
- For innovation and excellence to come, continuous improvement is highly important. Improvement should aim towards ‘zero defects’.
- In order to successfully implement TQM, the staff should be open minded and continuously updated and trained. The focus should be
to reinforce employee commitment and have a positive effect on morale leading to productivity gains.

- Teamwork and involvement of all stakeholders is key to success.
- The success of TQM implementation is the ability to monitor the progress and review the objectives.

Towards Total Quality Care

One of the contemporary thinkers of higher education and total quality management, Ronald Barnett (1992) says “Quality in higher education demands the establishment of an institutional culture, not so much a matter of total quality management but rather one of total quality care, in which each professional is seized of his or her responsibilities and takes care over all his or her own professional efforts”. According to him, quality should be seen as a process of critical dialogue within an institution, where course teams accept ownership and facilitate student engagement towards learning and development, and there is a self-critical culture of continuous care for the students’ quality course experience.

Barnett suggested that there are four core activities that takes care of quality in higher education: (1) teaching and learning; (2) student assessment; (3) staff development; and (4) curriculum/courses. These form a ‘protective belt’ to the overall student development and experience that is central to quality higher education. Beyond this, the activities within ‘auxiliary belt’ are important but have less direct bearing on the quality of student experiences. These are research and publication, institution policy towards access and recruitment, institution’s academic development plans, and link with industry, business and the professional community. Within this framework, quality in higher education institutions can be seen both in qualitative and quantitative terms.

10.7 INTERNATIONAL PRACTICES OF ACCREDITATION

Quality assurance is viewed differently in different countries. Each has its own philosophy and practice, though we can distill some of the common features of self-study and External Quality Monitoring. With different systems of accreditation and educational atmosphere and systems around the world, the need for international and regional cooperation has been realized. This had led to the establishment of regional and international network of quality assurance agencies for mutual understanding and recognition of each other’s systems of operation. Apart from helping the national agencies improve their own practice of assessment, these networks develop parity of assessment and ensure credit transfer and mobility of students and mutual recognition of degrees.

International practices fall into two distinct categories: country specific practices and region specific efforts. The former pertain mainly to
the leaders (mostly advanced countries) in the quality movement, while the latter are collective efforts for extending to other countries what the leaders have achieved in their respective places. Among the first category worthy of mention are the practices of Australia, the United Kingdom and the United States of America.

United States of America

In the United States, quality assurance in higher education institution is done through the accreditation process, which ensures that education providers meet, and maintain, minimum standards of quality and integrity regarding academics, administration and related services. There is no federal agency or ministry to control or oversee the post-secondary educational institutions in the USA. The accreditation is carried out by private, non-profit organizations designed and recognized for this specific purpose. Thus, external quality monitoring is the method of quality assurance in the USA.

The Commission on Accreditation (COA) founded in 1949 was the first national organization in the USA to develop criteria and recognize accrediting bodies. Thus, the involvement of non-governmental agencies in accreditation has been the norm. In 1974, the COA and the Federation of Regional Accrediting Commission of Higher Education (FRACHE) merged to form the Council on Post-secondary Accreditation (COPA), which served until December 1993 to promote and ensure quality of American post-secondary education. In January 1994, a new entity, the Commission on Recognition of Post-secondary Accreditation (CORPA) was established to continue the task performed by COPA. CORPA was dissolved in April 1997 after the Council for Higher Education Accreditation (CHEA) was created, which is now the agency to carryout the recognition function (USDE, 2005). Thus regional, national and specialized accreditation agencies apply for recognition to CHEA or the US Dept. of Education (USDE). The USDE recognition is required for accreditors whose institutions or programmes seek federal grants and student aid funds.

The CHEA recognition confers an academic legitimacy on accrediting organizations. The CHEA recognition of accrediting organizations is valid for 10 years with five-year interim report, while the USDE recognition review takes place every five years.

The accreditation, in the US is an on-going process. Initial earning of accreditation by an institution is not entitled to indefinite accredited status. By and large there are five key features of the accreditation process:

- Self-study: Institutions prepare a written summary of performance based on the standards criteria of the accrediting body;
- Peer review is conducted on the self-study report by a group of peers in the profession;
Site visit is organized by the peer team to review the claims made in the self-study report. All team members are volunteers and are generally not compensated;

Action by accrediting organization: The accreditation agency either confers accreditation or denies; and

Ongoing external review: Institutions and programmes continue to be reviewed over time for reaccreditation.

This takes place every few years to 10 years. (Eaton, 2000). The method of accreditation in the USA is similar to what is done in India by NAAC with two differences:

- The accreditation to a programme or institution is either given or denied. There is no grading/ ranking/score attached.
- There are many accrediting bodies (regional, national and specialized (subject specific/professional association)) for accreditation. But, these bodies should seek regular recognition from USDE or CHEA, thereby a two-tier accreditation system is operational in the USA.

United Kingdom

Established in 1997, the Quality Assurance Agency (QAA) for Higher Education is the centralized independent body funded by subscription from universities and colleges of higher education in the United Kingdom. The QAA’s role is to provide public assurance that standards and quality within higher education are being safeguarded and enhanced. The UK Government’s white paper – The future of higher education - stated that “The QAA has performed an important role in assuring academic quality and standards in higher education. Through its assessment of teaching in Subject Reviews, it has been instrumental in defining standards for teaching and enabling poor provision to be identified and eliminated” (UKDES, 2003).

In the UK, the quality assurance is done primarily through institutional audit and subject reviews. The institutional audits ensure that higher education institutions are:

- providing awards and qualifications of an acceptable quality and an appropriate academic standard; and
- exercising their legal powers to award degrees in a proper manner (where relevant).

The institutional review will take place in a six-year cycle from 2006. The process of institutional audit is a detailed and comprehensive scrutiny of the internal quality assurance systems of the institution, study of the self-evaluation documents prepared by the institution, and audit visits. The audit team expresses its judgment as ‘broad confidence’, ‘limited confidence’, or ‘no confidence’. The whole exercise is based on the code of
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practice for the assurance of academic quality and standards in higher education (QAAHE, 2003). The code has 10 sections:

- postgraduate research programmes
- collaborative provision
- students with disabilities
- external examining
- academic appeals and student complaints on academic matters
- assessment of students
- programme approval, monitoring and review
- career education, information and guidance
- placement learning
- recruitment and admissions

The code of practices sets out guidelines on good practice, and each section has precepts or principles that institutions should satisfy, with guidance on how to meet these principles. The system of quality assurance in the UK is similar to India in philosophy, though in practice the reporting mechanisms and details in the criteria differ significantly. This is because the contextual environment of quality assurance differs in both the countries.

Australia

Universities and higher education institutions in Australia are self-accrediting bodies. They typically have in place a system of formal, cyclical reviews involving external assessors, for evaluation of programmes and organizational units. The quality assurance process in Australian universities includes:

- Graduate destination surveys and student evaluation surveys;
- Accreditation/approvals from professional associations for courses such as health, medicine, law, etc.; and
- Use of external examiners for higher degrees.

In March 2000, the Ministerial Council on Education, Training and Youth Affairs (MCETYA) formally established the Australian Universities Quality Agency (AUQA) as an independent, not-for-profit national agency to promote, audit, and report on quality assurance in Australian higher education. The objectives of AUQA are to (AUQA, 2005):

- arrange and manage a system of periodic audits of quality assurance relating to the activities of Australian Universities and State and territory higher education accreditation bodies;
- monitor, review, analyze and provide public reports on quality arrangements in higher education institutions in Australia;
self-instructional material

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report on the criteria for the accreditation of new universities and non-university higher education courses; and

report on the relative standards of the Australian higher education system.

The first cycle of audit by AUQA will be completed by 2006. The universities themselves meet the cost of audits. Though the quality assurance process followed by AUQA is based on external quality monitoring, it does not provide any specific criteria, as each auditee will have systems that are relevant to its own objectives and character. Thus, AUQA accepts an auditee’s objective as the starting point. “It is explicitly the responsibility of the auditee to devise a systematic process for evaluating its objectives with respect to criteria which may include relevance, desirability, feasibility, distinctiveness, measurability etc. In order to check its own policies, procedures and practices, to learn whether it is achieving its objectives, and to determine how to improve its performance, an institution or agency must have in place appropriate quantitative and qualitative measures and indicators” (AUQA, 2005, p.10).

The EQM process starts with the self-review and submission of a portfolio to AUQA by the audited institution. AUQA peer team makes site visits to perform external reviews. As part of the peer review, the AUQA team also considers how the institution meets the National Protocols for Higher Education Approval Processes. AUQA advises institutions to consider the following in their self-reviews within the context of their quality system:

- What are the objectives of the process?
- How do these objectives relate to the organization’s objectives?
- Who has the responsibility for the process? Are others also responsible for various stages in the process?
- How is the process implemented?
- What documentation is required for or associated with the process?
- How is the effectiveness of the process monitored? What indicators are used?
- What is the current state of achievement of the objectives as revealed by the indicators and monitoring?
- What analysis of the strengths and weaknesses of these quality assurance arrangements is performed?
- What does this indicate about the process effectiveness in activity intended outcomes?
- What plans are in place (or proposals made) for development or improvement? (AUQA, 2005)

It is the responsibility of the institution concerned to take action on the audit report. Since, the report forms the basis of funding by the Commonwealth or the relevant state or territory government, failure to respond appropriately to the reports could lead to reduction on funding.
The system of quality assurance in Australia is quite different to what is practiced in the USA, the UK or for that matter in India. In Australia, EQM or quality audit is performed by AUQA (a central agency) and also by the State and Territorial accreditation bodies. There are no specific criteria for quality assurance, and thus AUQA audits the internal quality assurance process of the audited institution. The reporting process of the audit review includes ‘commendable practices’ and ‘areas for improvements’. Thus, no grade is given.

So far, we have seen that the USA, the UK and Australia follow different systems of quality assurance in higher education. But all are essentially doing external quality monitoring. In the next part of this section, we will discuss about international agencies in the field of quality assurance.

10.7.1 International Network for Quality Assurance Agencies in Higher Education (INQAAHE)

The INQAAHE was established in 1991 to collect and disseminate information on current and developing theory and practice on the assessment, improvement and maintenance of quality in higher education. The objectives of INQAAHE are to:

- promote good practices in the maintenance and improvement of quality in higher education;
- facilitate research into the practice of quality management in higher education and its effectiveness;
- be able to provide advice and expertise to assist the development of new quality assurance agencies;
- facilitate links between accrediting bodies as they operate across national borders;
- assist members to determine the standards of institutions operating across national borders;
- permit better-informed international recognition of qualifications;
- be able to assist in the development and use of credit transfer schemes to enhance the mobility of students between institutions both within and across national borders; and
- enable members to be alert to dubious accrediting practices and organizations.

The INQAAHE shares its views and relevant information through its website (http://www.inqaahe.org); its newsletter ‘QA’ published every six months; the journal ‘Quality in Higher Education’ published three times a year; member’s database; and biennial international conferences.

In April 2005, the INQAAHE general assembly in Wellington, New Zealand agreed on the “INQAAHE Guidelines of Good Practice” which is the result of discussion and consultations involving representatives from
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Asia-Pacific Quality Network (APQN)

The Asia-Pacific Quality Network (APQN) is a network of quality assurance agencies in the Asia-Pacific region established in Hong Kong in January 2003 and was legally incorporated as an association in Victoria State of Australia in December 2004. Its secretariat is housed at the AUQA office. The objectives of APQN are to:

- promote good practices in the maintenance and improvement of quality in higher education in the Asia-Pacific region;
- facilitate research into the practice of quality management in higher education and its effectiveness in improving the quality of higher education in the region;
- provide advice and expertise to assist the development of new quality assurance agencies in the region;
- facilitate links between quality assurance agencies and acceptance of each others’ decisions and judgments;
- assist APQN members in determining standards of institutions operating across national borders;
- permit better-informed international recognition of qualifications throughout the region;
- assist in the development and use of credit transfer programmes to enhance the mobility of students between institutions both within and across national borders;
- enable APQN members to be alert to dubious accrediting practices and organizations; and
- represent the region and promote the interests of the region, where appropriate, eg. Vis-à-vis other networks and international organizations.

The mission statement of APQN is “to enhance the quality of higher education in Asia and the Pacific region through strengthening the work of quality assurance agencies and extending the cooperation between them”.

With the development grant facility received from the World Bank, the APQN intends to strengthen the institutional capacity of its members. The capacity building measures of APQN have different approaches.

“In new small systems such as those in Afghanistan, Bangladesh, Bhutan, Laos, Myanmar and Pakistan, capacity development efforts aim to
help the countries establish quality assurance agencies. Representatives from these countries are invited to participate in APQN meetings, and consultancy services to these countries to help establish quality assurance agencies are considered. Countries such as Cambodia, China, Sri Lanka, Thailand and Vietnam – which have emerging quality assurance system – are helped to train their agency staff in good quality assurance practices, and to train the trainers for external reviews. In India, Indonesia and the Philippines – where quality assurance agencies are already functioning – the goal is to introduce reforms and new elements to their practices. This is being done through staff exchanges, workshops and consultancy services” (Stella, 2005).

With UNESCO, Bangkok, APQN is developing a toolkit on quality assurance of cross-border education. APQN plans to see that by 2010 all its full members recognize each other’s judgments. This is very important for mobility and credit transfer of students. At present the practices of quality assurance agencies vary a great deal in terms of the methodology (accreditation, audit or assessment), unit of assessment (institution or programme), outcome of assessment (no grading, two-point scale, multipoint scale), and disclosure of the report (confidential or public). Interestingly, all the quality assurance agencies believe in external quality monitoring/assessment within a transparent framework that has a combination of self-study, peer review and site visits. Based on similar characteristics, APQN intends to bring together member countries to agree on mutual recognition of the judgments. As such the APQN will strengthen co-operation in quality assurance in the region.

**European Association for Quality Assurance in Higher Education (ENQA)**

Quality assurance in higher education within the European Union is an issue of top priority. In 1999, the European Ministers of Education committed to establish the European Higher Education Area by 2010, which is referred as the Bologna Declaration. The Declaration encourages co-operation in quality assurance of higher education institutions in the European Union to develop comparable criteria and methodologies. It envisages a common system of credit transfer and mobility of students and teachers across European countries. In the European scenario, quality assurance in higher education uses eight types of evaluation terminologies to reflect the practice (DEI, 2003).

ENQA intends to serve the member agencies in the following ways:

- Disseminate information on recent developments in the evaluation of higher education through ENQA website and publication;
- Organize training workshops and provide advisory support;
- Share experiences and good practice in the field of quality assurance in higher education;
• Facilitate contracts to European quality assurance experts;
• Develop a model of peer review of quality assurance agencies in the European Union.

In May 2005, the European Ministers of Education adopted the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” drafted by ENQA. With this the path for setting up mechanisms for peer review of quality assurance agencies has been opened. The standards and guidelines for quality assurance (including evaluation, accreditation and audit) recommends:

- a set of standards for internal and external quality assurance of higher education institutions;
- standards for external quality assurance agencies; and
- a register of quality assurance agencies.

The purpose of the standards and guidelines is to provide a source of assistance and guidance to higher education institutions and quality assurance agencies to develop their own quality assurance systems in a common frame of reference to enable consistency of operational mechanisms and improve the procedures for mutual/multilateral recognition of qualifications (ENQA, 2005). The standard in no way intends to “dictate practice or be interpreted as prescriptive” as ENQA believes in the principles of good practice in external quality assurance in that:

- the institutional autonomy should be respected;
- the interest of students and other stakeholders such as labour market representatives should be in the forefront of quality assurance processes, and
- use should be made, as much as possible, of the results of institutions’ own internal quality assurance activities (ENQA, 2005).

**Washington Accord**

Signed in 1989, the Washington Accord is an agreement among the engineering quality assurance organizations of several countries including Australia, Canada, Ireland, Hong Kong, New Zealand, South Africa, Malaysia, Japan, Germany, Korea, Singapore, Taiwan, United Kingdom and the United States of America. The signatories to the Accord recognize that graduate accredited programs in any of the signatory countries be recognized by other countries having met the academic requirements for entry to the practice of engineering. The accord enables the signatory to have comparable criteria, policies and procedures for accrediting engineering programmes.
10.7.2 Mechanisms of Quality Assurance

A comprehensive quality assurance system comprises a few mechanisms emphasized and combined in various ways depending on the types of institution and country/ region it is used in. The basic mechanism lies in the institutional legislation that necessitates the institution concerned to work for quality assurance in its products, processes, services and outcomes.

Usually, such legislation finds its operational expression in the institutional quality assurance cell responsible for activating internal quality assurance operations. Individual academics, departments and faculties are made to prepare annual self-assessment reports, which include the assessment of individual subjects/ disciplines and the programmes. This assessment has to be reflective and self-critical, identifying weakness as well as strengths of the operations engaged in and also gauging the extent to which the set goals have been achieved. This assessment provides for continuous improvements in all the aspects of educational dispensation effected by the institution.

Beyond these major institutional mechanisms, there are state and/or regional accreditation bodies, directly or indirectly legitimized by the government(s) concerned that receive for consideration the internal/ self-assessment reports from institutions seeking accreditation. These reports are evaluated using the mechanism of peer-review commissioned by the accreditation body concerned. The review team analyses these reports critically and then conducts site visits to ascertain the claims made or implied in the self-assessment reports. Having satisfied themselves in all respects the team states its judgment about the course, programme, department or the institution, as the case may be. This judgment decides the kind of accreditation that is awarded to the institution concerned. As the award is not permanent, accreditation has to be sought periodically.

In addition to the above, there are other mechanisms which are, in some cases, integrated with the ones outlined above or used independently in various combinations depending on specific institutional settings, such as autonomous institutions in India and the U.K. market driven systems in the USA, the centre-oriented system in China and the like. Accordingly, some institutions go about analyzing purpose built statistics for development and correctives, some work on feedback collected from learners, old graduates, employers and other stakeholders to look for areas that need improvements, while some evaluate their achievements/ failures with the help of indicators or benchmarks for acceptable performance. Still others go by comparisons with best practices that are highlighted in the relevant literature from time to time or are identified for the purpose specifically.

In the present market driven economies and the context of mobile workforce, external assessment for purposes of quality assurance is rated highly, for it appeals to the psyche of employers, taxpayers and other
stakeholders alike, as it is perceived to be objective, unbiased and therefore, dependable. In places like India, however, where higher education institutions are generally self-regulating and autonomous, external assessment is frowned upon as an unwanted intervention against the traditional mechanisms like the academic boards/ councils, departmental councils, senates etc. In the U.K. however, the attitude of the academics had to change as funding got linked to institutional assessment/ performance.

In general, the practice of combining internal self-assessment with external evaluation is emerging as a major trend the world over. The negative features in this trend are:

- High costs to be borne by the institutions
- The immense and tiring paper work involved and
- The accompanying perception that all said and done what difference does it make after all!

Check your progress: 10

Notes: a) Write your answers in the space given below.
b) Compare your answers with those given at the end of the unit.

1. List out any three popular models of quality assurance.

10.8 LET US SUM UP

In this unit we have discussed about the Strategies for matching global standards, analyzed about SWOT, discussed about the Models of quality assessment and International practices of accreditation.

10.9 UNIT END EXERCISES

1. What do you understand by global standard? What are the strategies for matching global standards in education?
2. What are the international practices of accreditation? Substantiate your answer with examples from few countries.

10.10 ANSWERS TO CHECK YOUR PROGRESS

1. i) Baldrige Criteria
   ii) ISO 9000-2000
   iii) Capability Maturity Model

10.11 SUGGESTED READING


UNIT 11 - ISO 9000 CERTIFICATION FOR EDUCATIONAL INSTITUTIONS

Structure
11.1 Introduction
11.2 Objectives
11.3 ISO 9000 Certification for educational institutions
   11.3.1 ISO 9000 in education
11.4 General methodology for implementation of ISO 9000 in educational institutions
11.5 Start ISO Awareness Programs in the Institution
11.6 Benefits
11.7 Limitations
11.8 Accreditation and ISO 9000 standards
11.9 Let us sum up
11.10 Unit end exercises
11.11 Answers to check your progress
11.12 Suggested Reading

11.1 INTRODUCTION

Since the 1990s, the application of ISO 9000 standard has spread to other sectors including education and training. The ISO 9000 is a common label that consists of ISO 9001, ISO 9002, ISO 9003, ISO 9004 and their subsets issued first in 1987. ISO 9000 was revised in 1994 and in 2000. The current one is ISO 9000:2000. The ISO 9001 and 9002 are quality system standards that allow certification by a third party. The ISO 9000 certification indicates that the organization is able to meet the needs and demands of its customers in a planned and controlled manner. But this does not necessarily indicate the products are also of quality.

11.2 OBJECTIVES

After going through this unit, you should be able to

- Discuss the ISO 9000 Certification for educational institutions
- Discuss the General methodology for implementation of ISO 9000 in educational institutions
- Start ISO Awareness Programs in the Institution
- Discuss the Benefits and the Limitations
- Understand Accreditation and ISO 9000 standards
11.3 ISO 9000 CERTIFICATION FOR EDUCATIONAL INSTITUTIONS

About 63 countries jointly decided in Switzerland to develop some code of conducts for quality control in different organisations. They established an International Organisation for Standardization and named it ISO 9000. Later on, this ISO 9000 was modified as per needs and renamed as ISO-9001, ISO-9002, ISO-9003, and ISO-9004 etc.

Since ISO 9000 standards are generic in nature, it is equally applicable to service organisations such as software companies, health care and education. There has been a steady increase in the number of educational institutions obtaining ISO 9000 Certification worldwide and it is true in India also. Many private educational institutions have adopted this, particularly technical institutions, as it increases their social acceptability, provides a ‘stamp of approval’ of an organization’s quality management practices and preferred by customers to other institutions.

11.3.1 ISO 9000 in education

There is a pressure from ISO, pressure from the changing global environment and diminishing resources and pressure for educators to meet the needs of industry and other stakeholders with a better skilled and quality workforce (Theresa 2005). There is an increasing demand for educational institutions to get certified or registered for various reasons like facing competition, obtaining social acceptability, getting a stamp of quality and such others. This is particularly true for technical education, as it contributes in a large way in the development of a nation’s economy. ISO 9000 can also act as a pillar in an organization’s approach to TQM. And TQM is very relevant for education because quality in education is a continuous process (Srinivasa Pai P, et-al 2004). Even then only a few institutions have registered and this varies from country to country. For example all polytechnics in Taiwan have registered, whereas in the UK and Australia, where governments also place a high emphasis on quality assurance, several universities like Wolverhampton and Royal Melbourne Institute of Technology have ISO 9000 quality systems (Stanislav Karapetrovic 2001). Many people from education and training world wonder whether adopting ISO 9000 standards is the best way to improve quality in education and training. For many it is a very costly process (Wouter Van den Berghe). Tough ISO 9000 was originally intended as a quality system for the manufacturing industry, it is now being applied to education, and there has been controversy associated with it, in terms of its suitability and applicability to the teaching-learning process. There have been efforts to make ISO 9000 standards applicable to education and in this regard, in both USA and Europe, documents have been developed about ISO 9000 that can be applied specifically to the field of education and training.

Currently, the newest development on ISO 9000 in education are happening at ISO. It is supporting the development of guidelines for the
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implementation of the ISO 9000 standards in education and service organisations. The guidelines are called the International Workshop Agreement to Quality Management Systems. Guidelines for the Application of ISO 9001:2000 in Education. The guidelines have been published by ISO as an International Workshop Agreement (IWA). These guidelines were created by the participants at a workshop, held during October 2002 in Acapulco, Mexico and attended by 400 people from 20 different countries. This IWA after review by ISO may result in a publication or withdrawal of the IWA. The objective of the IWA is “to provide guidelines to assist organisations that provide educational products to implement an effective QMS that meets the requirements of ISO 9001:2000 … and to help educational organisations to relate the concepts in ISO QMS standards to education practices (Theresa 2005).

11.4 GENERAL METHODOLOGY FOR IMPLEMENTATION OF ISO 9000 IN EDUCATIONAL INSTITUTIONS

The methodology for establishing an ISO 9000 quality system depends on a number for factors such as the nature of business, current status of quality control and market requirements. Since educational institutions are in the business of delivering education to students, the kind of QMS they should have are slightly different from that of a conventional manufacturing industry, as education is a form of service organisation. S. Karapetrovic and D. Rajamani (1997) (S. Karapetrovic et-al 1997) have viewed university as a manufacturing system, with defined customers and suppliers. The university receives its students from high schools and institutions. After passing the admission tests and other formalities, the students go through a prescribed duration of education, by taking different number of courses each year their knowledge is induced by the faculty, which include Professors, Lecturers, Lab technicians etc. with the teaching-learning process being supported by the university administration. At the end of each year, the students have to meet certain requirements in order to pass to next year or graduate. The customers (industry, government and society) should be assured that their requirements for quality are met on a continuous basis and the students passing out will be acquiring the specific quality characteristics like employability ability to solve real life problems etc. ISO 9000 can play a major role in assuring this quality. In this respect, the management of educational institutions has to make a beginning by initiating the necessary steps for its effective implementation. There are some steps which have to be taken as a part of a general methodology for implementing ISO 9000, which are as given below:

Commitment from Senior Management

The top management should demonstrate a commitment and a determination for implementing ISO 9000 QMS in the institution. Top management must be convinced that registration and certification will enable the institution to demonstrate to its customers a visible commitment
to quality. It should appoint a management representative (MR) to coordinate quality system activities, which generally happens to be the Head of the Institution, namely the Principal.

**Establishing a Steering Committee and a Task Force**

A steering committee shall be set up. It should be headed by the Principal and its members should include the various department heads, along with the MR, if MR and Principal are different. A task force with MR as its coordinator should also be set up for the preparation of documentation (manuals, procedures, forms etc). The members of the steering committee and its coordinator should be trained on ISO 9000 quality systems by a professional training organisation.

**Appointment of a Consultant** (if necessary)

The steering committee should determine whether a consultant is required. But in most of the cases, it is found worthwhile to appoint a consultant, who will also train the people in the organisation. The appointment of consultant will facilitate speedy implementation and will guide the organisation in overcoming the obstacles, through their knowledge and experience and will help the institution in achieving certification in a time bound frame. Cost is an important factor while hiring the services of a consultant.

**11.5 START ISO AWARENESS PROGRAMMES IN THE INSTITUTION**

ISO 9000 awareness programmes should be conducted to communicate to the people working in the institution, the aim of the system, the advantages it offers to the employees, customers and the institution, how it will work and their roles and responsibilities within the system. These programmes generally will be conducted by the top management with the help of the consultant.

**Training**

Training programmes should be structured for different categories of employees – teaching and non-teaching and supporting staff and again among teaching staff, senior and junior level staff. The training may be about basic quality concepts, culture implications, writing quality manuals, procedures, forms etc. carrying out internal audit etc. One of the main aims of this training is to have a group of internal auditors, which include teaching staff, whose assistance is very much essential in the regular audits to be carried out for assuring quality through ISO 9000 QMS.

**Initial Status Survey**

This is mainly carried out to gauge the readiness of the institutions to go in for ISO 9000 QMS and also to understand the organizational flow chart, how information flows within the organisation and other aspects.
Action Plan

This will help in establishing a time table for implementing ISO 9000 QMS in the institution. This should define the responsibilities of different departments and personnel and set target dates for completion of activities.

Develop Quality System Documentation

This is the most important activity in the implementation process. Quality system documentation is generally prepared at three different levels – Quality manual, Quality system procedures and Quality documents.

Implementation

In this phase, the QMS developed is implemented in a phased manner and when done like this, the effectiveness of the system in selected areas can be evaluated. It would be good idea initially to evaluate areas where the chances of a positive evaluation are high, in order to maintain the confidence of both the management and staff in the merits of the QMS.

Internal Quality Audit

As the system is being installed, its effectiveness should be checked by regular internal quality audits. Internal quality audits are conducted to verify whether the documented system is being actually implemented as laid down. Even after the system stabilizes and starts functioning, the process of internal auditing should be planned and performed as part of an ongoing strategy.

Management Review

When a documented quality system has been operating for three to six months, an internal audit and management review should be conducted and corrective actions implemented. The efficacy of these corrective actions should be ensured.

Pre-Assessment Audit

When system deficiencies are no longer visible, it is now time to go in for certification. But before that, a pre-assessment audit can be arranged either by the consultant with the help of an independent and qualified auditor. This can provide some kind of a confidence for formally going ahead with an application for certification.

Certification and Registration

Once the quality system has been in operation for a few months and has stabilized, a formal application for certification could be made to a selected certification agency. The certification agency first carries out an audit of the documents. If the documents conform to the standard, then an on-site audit is carried out. If the certification body finds the system to be
working satisfactorily, it awards the institution a certificate, which is generally for a period of three years.

During this three year period, it will carry out periodic surveillance audits to ensure that the system is continuing to operate satisfactorily (Applying ISO 9000 QMS, D.L. Shah Trust, 1996).

### 11.6 BENEFITS

Some of the significant benefits of ISO 9000 QMS for an educational institution include:

- ISO 9001 quality system documentation will guide teaching, learning and research in a convenient, predictable and generally acceptable way.
- The documentation provides a guide for the faculty and staff to improve their understanding of the processes and also train newly hired staff.
- The QMS helps in identifying problems during quality audits (both internal and external), correct it and prevent it from recurring, thereby improving quality in a consistent manner.
- The quality system provides for a clearer articulation of the rights and responsibilities of students, faculty and supporting staff.
- An external and independent evaluation by the registration authority provides an outsider’s point of view, which is often advantageous for quality improvement. Strengths and weaknesses are identified and potential for improvement uncovered.
- An adequately implemented ISO 9000 system will focus on the reduction of quality problems, including student and research project failures and foster an environment of continuous improvement.
- A few more benefits, which are general in nature include — recognition, improvement in quality and productivity, greater standardization, fewer mistakes and less defective work, fewer customer complaints, more business and lesser operating costs (Salleh Yahya et-al 2001).

Theresa (Theresa 2005) in her thesis evaluates the benefits of ISO 9000 when implemented in an educational institution, which include more confidence of the customers, a greater involvement of staff and faculty in the educational process, better management structure, a clarity of roles and responsibilities, better links to industry and business clients and an improvement of efficiency and organisation of the institutions.

### 11.7 LIMITATIONS

The following are some of the limitations of ISO 9000 QMS like:

i) Fears of increased bureaucracy and paperwork.
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ii) Cost of implementation.

iii) Amount of time and effort spent by faculty on this can be significant and if the short term benefits are not realized, the enthusiasm may soon die.

iv) ISO 9000 standards were basically drafted for manufacturing industries and hence they are more oriented towards them in terms of terminology, guidelines, documentation and other aspects of the standards. Though there has been a transition to education and the standards are more generic in nature, there is still need for better interpretation of these standards to education (Stanislav Karapetrovic 2001, Theresa 2005).

v) There are some misconceptions prevalent in the minds of the people about these standards, which can be a hindrance to its proper understanding, implementation and adoption like:

- The institution will produce students and/or research at world class level, which is not true.
- It can be used as a cost cutting tool, which is not a fact.
- There will be more employee participation and empowerment, which depends upon the organisation, top management and other factors.
- It can be used for benchmarking and
- It produces more documentation (S. Karapetrovic, et-al 1997).

Difficulties

For a successful implementation of ISO 9000 QMS in an educational institution there are certain difficulties which are listed below:

- Lack of top management support and commitment
- Lack of staff initiative
- Lack of understanding of the ISO 9000 QMS
- Constraints on resources such as, manpower, time and money
- Lack of proper training and education to employees
- Unclear about the benefits of registration
- Misinterpretation of ISO 9000’s requirements and
- Under-estimation of the efforts and resources needed in certification.

11.8 ACCREDITATION AND ISO 9000 STANDARDS

Accreditation is basically a certificate of assurance of quality of education imparted by a programme in an approved institution. The process of accreditation verifies whether a programme offered by an institution meets the norms and standards prescribed by the regulating authority. In India, the process of accreditation of courses and programmes are carried out by the National Accreditation and Assessment Council
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1. List out any three difficulties of an educational institution for a successful implementation of ISO 9000 QMS.

ISO 9000 certification is more acceptable than accreditation as it is known worldwide among the industries and its authenticity has been proven, whereas accreditation is relatively a new phenomenon and will take time for acceptance by the society in general. But ISO 9000 standards being more suitable to industries are not easily adaptable to education without ambiguity right now, though efforts are being made at the ISO level to have separate standards for education and it will take some time to establish (M. Sengupta et-al 2004, CVS Ranga Sai 2002).

It gives an impression that ISO 9000 and accreditation are two different approaches for quality assurance to education. ISO 9000 is consistency in product quality through documentation of processes and procedures whereas accreditation is meeting the minimum quality requirement. But a closer look at them will reveal that they are complementary to each other. For example, institutions going in for ISO
9000 certification and getting a certificate can go to accreditation easily and get themselves accredited in a very short time period. This is because the effort involved in the process of getting certified will prepare the institution to know its strengths and weaknesses and rectify them and to prepare themselves in a much better way to accreditation. The reverse can also be true. Both approaches try to bring in quality consciousness among the people in the organization. There is a sense of commitment to quality and an urge to establish quality and improve upon it on a regular basis. ISO 9000 gives market recognition and acceptance in the society whereas accreditation gives credibility and acceptance among the academic circles and approval by different government bodies.

11.10 UNIT END EXERCISES

1. Discuss the methodology for implementation of ISO 9000 in education institutions.
2. What are the benefits and limitations of ISO 9000 Certification for education institutions?
3. Distinguish between accreditation and ISO 9000 Certification.

11.11 ANSWERS TO CHECK YOUR ANSWERS

1. a) Lack of staff initiative
   b) Lack of understanding of the ISO 9000 QMS
   c) Lack of proper training and education to employees.

11.12 SUGGESTED READING


12.1 INTRODUCTION
The development of any nation is directly related to the quality of education which their higher education system imparts. To achieve this, our President of India puts forth the capacities required to be built up among the students by the education system, during his participation in the Decennial Year Celebrations of the National Assessment and Accreditation Council (NAAC).

12.2 OBJECTIVES
After going through this unit, you should be able to
- Discuss the new quality perspectives in higher education.
- Discuss the significance of industry academic partnership for quality education

12.3 CAPACITY BUILDING MODEL
When the students come out of the university certain capacities are required to be built in them for enabling them to face the challenges in the real world, in their professional career and also facilitate their participation in the task of national development. I suggest that the ingredients for capacity building must be embedded right from the beginning of the students life. A good educational model is the need of the hour to ensure that the students grow to contribute towards the economic growth of a nation. I am sure that the university is paying attention to this need. For participating in the nation-building tasks, the capacities required to be built among the students in their formative years by the educational institutions.
are the capacity for research or enquiry, the capacity for creativity and innovation, particularly the creative transfer of knowledge, the capacity to use high technology, the capacity for entrepreneurial leadership and the capacity for moral leadership.

(a) Research and Enquiry

The 21st century is about the management of all the knowledge and information we have generated and the value addition we bring to it. We must give our students the skills with which they find a way through the sea of knowledge that we have created and continue with lifelong learning. Today, we have the ability, through technology, to really and truly teach ourselves to become lifelong learners. This is required for sustained economic development, material and individual prosperity.

(b) Creativity and Innovation

The management of knowledge in the 21st century is beyond the capacity of a single individual. The amount of information that we have around is overwhelming. The management of knowledge therefore must move out of the reach of the individual and shift into the realm of the networked groups. The students must learn how to manage knowledge collectively and to work in multi-disciplinary teams. When the information is networked, the power and utility of the information grows as ‘squared’ as predicted by Metcalfe’s law. An information that is static does not grow. In the new digital economy information that is circulated creates innovation and contributes to national wealth.

(c) Capacity to Use High Technology

Every student in our schools should learn how to use the latest technologies for aiding their learning process. Universities should equip themselves with adequate computing equipment, laboratory equipment, and internet facilities and provide an environment for the students to enhance their learning ability. In the midst of all of the technological innovations and revolutions, we cannot think that the role of the teachers will be diminished. In fact the teacher will become even more important and the whole world of education will become teacher-assisted and would help in “tele-porting” the best teacher to every nook and corner of the country and propagate knowledge. The teacher becomes a facilitator and knowledge manager.

(d) Entrepreneurship

The aptitude for entrepreneurship should be cultivated right from the beginning in the university environment. “We must teach our students to take calculated risks for the sake of larger gain, but within the ethos of good business. They should also cultivate a disposition to do things right. This capacity will enable them to take up challenging tasks later.
(e) Moral Leadership

Moral leadership involves two aspects. First it requires the ability to have compelling and powerful dreams or visions of human betterment. Moral leadership requires a disposition to do the right thing and influence others also to do right things. In sum, enquiry, creativity, technology, entrepreneurial and moral leadership are the five capacities required to be built through the education process. If we develop in all our students these five capacities, we will produce the “Autonomous Learner”, a self-directed, self-controlled, lifelong learner who will have the capacity to both respect authority and at the same time capable of questioning authority, in an appropriate manner. These are the leaders who would work together as a “Self-organizing Network” and transform any nation into a developed nation in a time-bound manner. The question, which arises in our mind, is, how we can ensure that our universities, institutions and programmes have built this capacity in them for ensuring a generation of enlightened quality graduates, post-graduates and doctorates. This I consider is the task of the National Assessment and Accreditation Council (NAAC) basis for its assessment procedure, viz., curricular aspects, teaching-learning evaluation, research consultancy and extension, infrastructure and learning resources, students support and progression organization and management and healthy practices.

The institution highlights its functioning with reference to these criteria. Based on this self-study report a team of peers, visits the institution, studies and gives a score that reflects the institutional grade. As a third step, the executive committee of the NAAC reviews the report and takes a decision about the grade of the institution. So far in the last ten years, NAAC has accredited 111 out of 307 universities and 1910 out of over 15,000 institutions in the country. Definitely there is a need to increase the pace of accreditation by creating professional agencies.

12.4 MODIFICATION IN ACCREDITATION SYSTEM

The NAAC may consider incorporation of the following modifications to the accreditation system:

- The criteria for assessment may include the expenses to be incurred by students. To bring down the cost of education, we should explore the possibility of using tele-education so that a good teacher can teach much larger number of students than he or she can teach in a real classroom. This is all the more relevant since EDUSAT is up in the orbit and waiting to the used.

- The NAAC has unique experience of having studies more than 1900 institutions. While evaluating, the NAAC would have found that for each of the criteria used in the evaluation there is a institution or university whose practices are the best and would stand out as symbol of that practice. This experience should lead to evolution of a book of experience with a title “Great Institutions of
Higher Learning”. In order to be exclusive, the number should not exceed 30. This will also be used as an All-India ranking for the universities and institutions for the students when they decide to join the higher education system.

- Another method of bringing down the cost of education is by the generation of quality content in digital form—text books, lecture material and lecture notes and work-books by renowned teachers and good students. One advantage of using digital content is that we could over-lay multiple languages and make the education system reach all parts of the country. The contribution of institutions and universities in this direction should also find a place in the evaluation system.

- Transparency in the admission process is one of the important elements for promoting a healthy education system. The fairness of the admission process followed should also become one of the criteria in the assessment process.

- The students coming out from the institutions and universities are finally deployed in the agricultural, manufacturing and service sectors of the nation. There must be a feedback generated by the user agency about the contribution of the students of a particular university or institution in the work environment. This is the final test of the capability among their students to contribute to the work environment.

- The constitution of the peer review committee should be designed to include members drawn from academia, industry, service sectors, agriculture, representatives of parents and societal personalities.

- Since there is a large backlog of institutions to be accredited. I would suggest the NAAC to select private sector accreditation agencies and train them for undertaking an objective accreditation task with severe penalties for any attempt to compromise the stated objectives of accreditation. This approach had been very successful in the software industry, example, “Capability Maturity Model” and in the manufacturing industry, the ISO 9000 certificate.

Ultimately education in its real sense is the pursuit of truth. It is an endless journey through knowledge and enlightenment. Such a journey opens up new vistas of development of humanism where there is no scope nor room for pettiness, disharmony, jealousy, hatred or enmity. It transforms a human being into a wholesome whole, a noble soul and an asset to the universe. Universal brotherhood in its true sense becomes the sheet anchor for such education. Real education enhances the dignity of a human being and increases his self-respect. If only the real sense of education could be realized by each individual and carried forward in every field of human activity the world will be a better place to live in. The mission of the National Assessment and Accreditation Council is to ensure
that our higher educational system is fully tuned towards creation of enlightened citizens who in turn will transform India into a prosperous, happy, strong and safe nation.

12.5 INDUSTRY ACADEMIA PARTNERSHIP FOR QUALITY EDUCATION AND RESEARCH

With the rapid advancement of knowledge and rapidly changing technology base, it has become absolutely essential that the industry and academic work together as partners in progress for mutual advantage for each other. For industry to create and sustain the vital competitive edge in the global economic environment, it is necessary to adopt latest technology and develop innovative products and services which should be cost effective while at the same time conforming to the world class quality. Industries need not only qualified manpower having knowledge and skills of handling state-of-the-art technology and decision support tools in its design, manufacturing and managerial activity but also require a regular and easy flow of technology and that could be assured by a synergetic partnership between industries and academic institutions/ universities. Likewise, the academic institutions which produce the most vital pillar of strength of today’s knowledge economy namely, the human capital, have to keep themselves abreast of the technology trends and respond to the current and future technology needs of the industries.

Academic institutions can no longer work in isolation and deliver their products both human capital and intellectual property to meet the requirements of industries without an effective alliance and partnership with the industries. Industry-academia partnership is not only desirably but has emerged as an essential condition to foster academic and research excellence in the institutions and universities, to accelerate the growth of relevance research and to foster the environment of technology innovations.

In fact, Industry-Academia partnership is a win-win situation for both the sides. The successful examples of Industry-Academia partnership can very easily be witnessed in many of the advanced countries specially USA, Japan, UK and countries of Europe where the life line of the industry is the university. In India the industries by and large till recently regarded the Exim policy of the Government as their life line and not the institutions and universities to whom they should have looked to for their productivity improvement and technology solutions. But then, India is now gearing up to realize the long cherished dream of effective Industry-Academia partnership. With the economy booming with a GDP growth of 8 per cent plus and with economic and business activity looking upwards in all major sectors, India is fast emerging as a Knowledge Superpower. The impressive economic growth is being fuelled and propelled by the power of mind and innovation for which the new generation professionals of India are well-recognized the world over. The important point is to realize that for India to become a Knowledge Superpower we have to enhance the
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It is therefore, absolutely essential that we learn to work together in the world of learning as well as in the world of work. I may add that it is not difficult to work together as partners in progress today, as both sides now jolly well understand the importance of working alliances and partnership. Days are gone when the industries in India would say that they care hell for the technology or the research support from Indian institutions and that they can get what they require in respect of technology, knowledge and know-how from any where in the world. Strong and developed India has to have a very strong intellectual and knowledge base supported and nurtured by a vibrant academic and research environment in its institutions which is well supported by the industry.

The important question is how to make it possible for India academic institutions to work in partnership with the industry at home and for that reason abroad. Because of the significant advancements in Information and Communication Technology arena, the power of connectivity and the power of networking, to which India has prepared itself very well, now it is possible to work in partnership and alliance with industries at home and abroad. There are many ways by which we can create a vibrant Industry-Academia partnership environment in our academic institutions especially in engineering and technology institutions. We have to learn from the best practices in the leading institutions, like IITs, IISc and other reputed institutions such as, DCE, BITS, Anna University, Jadavpur University and many other institutions in our own country where the level of partnership is already quite high. If we look at the highly successful world-class universities abroad, we cannot fail to notice that a close partnership with industries and society is at the core of the success strategy of these world-class institutions. The society supports the university with endowment and industries support a large share of quality research and technology innovations in the academic departments. The net result is that industry relevant research, undergraduate the postgraduate projects aligned to the live problems of the industry and society are pursued within the institution. The faculty and students greatly benefit from the consultancy and from the knowledge updating and technology short term training programmes, management executive programmes organized for the industry professionals. The academic institutions offer a variety of such knowledge services to make the partnership between industry and academia a highly successful venture. Besides contributing to the fiscal resources, the partnership between Industry and Academia brings the world of work closer to the world of learning. In fact, if we look at the budget of world-class universities, one cannot fail to notice that the quantum of fund flowing from industry for industry relevant research and endowments from society almost match and
often go beyond the share of public funding. Such like financing of higher education enables the world-class universities to provide world-class academic environment and enables them to significantly contribute to technology innovations and industry relevant research to help their country’s industries scale new horizons of international business. The important question is while it can work in world-class institutions abroad, why it cannot work in Indian engineering and technology institutions specially that now India is looking upward to becoming a Knowledge Superpower and is rapidly emerging as one of the largest economies of the world?

Now, in India, the multinationals as well as our own reputed industrial houses including the industry in the knowledge sector namely, Info-tech, Bio-tech, Telecom and industries in the pharmaceutical, food processing, energy and infrastructure sectors are looking forward to forging better relationships and alliances with the academic institutions in India. If Intel can thing of Intel Planet Lab having its research nodes in almost 250 reputed institutions around the world, some of them in India, what prevents our own high and mighty telecom industries, software industries and such like knowledge industry houses to develop such a distributed research environment in India. Both academic institutions and industry have the challenge to compete globally and this challenge can only be responded by Industry Academia working together. Further, industries now do not want to venture into re-education and training of the human resources which they recruit from the academic institutions. They really want ready to work professionals to work on technology portals and technology intensive industrial environment which implies that he industries want that the industrial trainings, which the industry was organizing earlier to sharpen and orient their newly recruited workforce should be taken care of by the institutions so that the gap between a graduating engineer and a professional engineer is largely bridged at the institution level. It is my considered view that the academic institutions should venture into not only producing man and women of competence and caliber possessing knowledge and skills as perceived by the designers of the curriculum but they must also venture into developing industry relevant skills in their students. This can be best done provided effective Industry-Academia partnership becomes a reality in our institutions. I suggest the following strategy to significantly improve the Industry-Academia partnership:

1) Motivating students to undertake industrial training, summer/winter internships in the reputed industries and work there with the research team/ product development team or even look for scope of improving productivity and quality by employing a scientific bent up mind and system engineering.

2) Motivating UG and PG students to undertake industry relevant minor and major projects, identify an industry co-supervisor so
that the project output delivers technology solutions to the problems of the industry. In turn, industry should pay some incentives for such bring students who take up the live problems of the industry and offer technology solutions through their project work. The incentives could be in the form of stipend or material or equipment support to the project work.

3) A very interesting and exciting phenomenon which has surfaced in the recent times in engineering institutions in our country, especially in reputed institutions including DCE, relates to emergence of research culture at the UG level. This is my opinion one of the significant advancement being made in the UG technical education in India whereby some of the highly talented and innovative minds at UG level are embarking upon cutting age research and product innovation in collaboration and partnership with the industries. I have seen many successful examples of these in my own institution namely, DCE and I also had an opportunity to scan many such successful creative and innovative research contributions coming from undergraduates from other reputed institutions including the IITs. Can we not capitalize on this new strength in our UG engineering education and create a vibrant research and technology innovation environment in our institutions in India? My judgment is that with proper motivation to the bright and talented students and inspired faculty members and a dialogue with the industry, it is possible to provide a major flip to this new but rather very important initiative to strengthen India’s science and technology education.

4) Industries at home and abroad will be too willing to cooperate and support as we have seen in many of the innovative ventures in DCE relating to design and development of innovative automobile vehicles namely, Formula Student Car, Supermileage Vehicle, All Terrain Vehicle, Hybrid Car, Unmanned Aerial Vehicle and a good number of innovative and creative research ventures in the area of security software, robotics, nano scale devices, optical sensors and development of new materials where industry support was overwhelming.

5) Industry-academia partnership can also be significantly boosted by ensuring that R&D in an academic institution is aligned to the needs of the industry and industry is involved right from the conceptualization of the research and development projects. Such a concept is already finding expressions in TIFAC Technology mission projects which are being pursued in the country in the TIFAC-CCORE Centers. One such center is at DCE for Fiber Optics and Optical Communication and we have tested the fruits of a close and effective partnership with the industry in these technology missions. It has improved the
quality of research and has also created the much needed world-class research environment which has attracted innovative minds of students at all levels namely, Ph.D, PG and UG levels.

6) Mission orientation and alignment to industry needs is a must in our R&D and technology development programmes in an academic institution to build effective partnership with the industries. This does not mean that we should not carry out basic research and development. We should do it by all means but a significant proportion of our research effort must be gainfully invested into building up a strong techno science base in partnership with the industries. I am pretty sure Indian policy makers and planners have visualized this necessity as early as at the time of casting their vision for a developed India towards the end of 20th Century.

It is important here to emphasize that the industry is quite conscious of the investment it makes in R&D and technology ventures. It requires a time-bound quality output and as such, the academia has to ensure that they formulate their project proposals with lot more care and implement it with a corporate mindset to ensure their timely completion. It is therefore required that a corporate research culture tuned to high research integrity is developed in the academic institutions. Academic institutions would then work like corporate research centers at least in the areas in which they venture into industry relevant R&D. Such a research culture will ensure high quality of research output and at the same time assure high research integrity which would in turn, bring India into the center stage of world-class research which is a must if India has to become a developed country and a Knowledge Superpower in the near future.

12.6 LET US SUM UP

We would like to close with an optimistic note that India is on the move and that both the academic institutions and the industry now understood the value and work of Industry-Academia partnership than ever before. As such, it is the right time to create a vibrant environment of industry-academia partnership in our academic institutions.

Check Your Progress: 12
Notes: a) Write your answers in the space given below.

b) Compare your answers with those given at the end the unit.

1. Write down the capacities required to be built among the students by the educational institutions.
12.7 UNIT END EXERCISES

1. Discuss the new quality perspectives in higher education.
2. What modifications do you suggest in the accreditation system?
3. Discuss the significance of industry academia partnership for quality education and research.

12.8 ANSWERS TO CHECK YOUR PROGRESS

1. Research and Enquiry,
   Creativity and innovation,
   Using High technology,
   Entrepreneurship, and
   Moral leadership.

12.9 SUGGESTED READING

UNIT 13 - STATUTORY BODIES IN THE FIELD OF EDUCATION

Structure
13.1 Introduction
13.2 Objectives
13.3 Statutory Bodies in the Field of Education
13.4 Important functions and contributions of the MHRD
13.5 Important functions and contributions of the UGC
13.6 Important functions and contributions of the NCERT
13.7 Important functions and contributions of the NCTE
13.8 Important functions and contributions of the NIEPA
13.9 Let us sum up
13.10 Unit end exercises
13.11 Answers to check your progress
13.12 Suggested Reading

13.1 INTRODUCTION

The term “Higher Education”, in India, refers to post-secondary (post-plus two) or tertiary level education. All institutions imparting instruction leading to a university degree or an equivalent, may be termed as institutions of higher education. The expansion of the system normally refers to one, or a combination, of the following: (i) an increase in the number of institutions; (ii) a growth in student enrolment; (iii) an increase in the number of teaching and non-teaching staff; (iv) the diversified structure in terms of courses, institutional structures and management styles; (v) an enhancement of expenditure on the operation and development of the system. Higher education in India is a gigantic enterprise, employing a large number of personnel, incurring an annual expenditure of millions of rupees and teaching a large body of students.

13.2 OBJECTIVES

After going through this unit, you should be able to
- Discuss the Statutory Bodies in the Field of Education
- Discuss the Important functions and contributions of the MHRD, UGC, NCERT, NCTE and NIEPA

13.3 STATUTORY COUNCILS AND APEX BODIES IN THE FIELD OF EDUCATION

The Statutory Councils and Apex Bodies play important roles in reforming the education system of the country. These councils or apex
bodies are either established by the state governments or by the central government. They are responsible for recognition of courses, promotion of professional institutions and providing grants to undergraduate and post graduate programs and various awards. The Important National councils of the country include:

- All India Council for Technical Education (AICTE)
- Indian Council for Agriculture Research (ICAR)
- National Council for Teacher Education (NCTE)
- Rehabilitation Council of India (RCI)
- Medical Council of India (MCI)
- Indian Nursing Council (INC)
- Dentist Council of India (DCI)
- Central Council of Homeopathy (CCH)
- Central Council of Indian Medicine (CCIM) etc.

The essence of Human Resource Development is education, which plays a significant and remedial role in balancing the socio-economic fabric of the Country. Since citizens of India are its most valuable resource, our billion-strong nation needs the nurture and care in the form of basic education to achieve a better quality of life. This warrants an all-round development of our citizens, which can be achieved by building strong foundations in education. In pursuance of this mission, the Ministry of Human Resource Development (MHRD) was created on September 26, 1985, through the 174th amendment to the Government of India (Allocation of Business) Rules, 1961. Currently, the MHRD works through two departments:

- Department of School Education & Literacy
- Department of Higher Education

While the Department of School Education & Literacy is responsible for development of school education and literacy in the country, the Department of Higher Education takes care of what is one of the largest Higher Education systems of the world, just after the United States and China.

The Dept of SE & L has its eyes set on the “universalization of education” and making better citizens out of our young brigade. For this, various new schemes and initiatives are taken up regularly and recently, those schemes
and initiatives have also started paying dividends in the form of growing enrolment in schools.

The Dept. of HE, on the other hand, is engaged in bringing world class opportunities of higher education and research to the country so that Indian students are not finding lacking when facing an international platform. For this, the Government has launched joint ventures and signed MoUs to help the Indian student benefit from the world opinion.

The main objectives of the Ministry would be:

- Formulating the National Policy on Education and to ensure that it is implemented in letter and spirit
- Planned development, including expanding access and improving quality of the educational institutions throughout the country, including in the regions where people do not have easy access to education.
- Paying special attention to disadvantaged groups like the poor, females and the minorities
- Provide financial help in the form of scholarships, loan subsidy, etc to deserving students from deprived sections of the society.
- Encouraging international cooperation in the field of education, including working closely with the UNESCO and foreign governments as well as Universities, to enhance the educational opportunities in the country.

The Ministry of Human Resource Development (M.H.R.D.) consists of the following departments:

a) Department of Education.
b) Department of Culture
c) Department of Arts
d) Department of Youth Affairs and Sports
e) Department of Women’s education

Department of the Education is one of the constituent part of the Ministry of Human Resource Development. It is working under the Minister of State with the overall charge of Minister of Human Resource Development.

Following are the roles performed by the Ministry of Human Resource and Development particularly in the field of education:

1. Planning:

The Central Government determines targets and prepares the educational plans to be implemented by the country as a whole.

2. Educational Reforms:

Different Commissions and Committees have been set up by the Govt. of India from time to time and different valuable recommendations as well as suggestions have been provided by the Government for the
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3. Organization:

Organization is the important role for executing the educational plans in the country. It is a means to secure the smooth and efficient running of the educational institution. Organisation should be such which will help for the improvement and adjustment of every educational service, activity and function which effect the teaching, learning process for the attainment of the objective.

Therefore, the Ministry of Human Resource and Development at the Centre plays the above role in the field of education. For this purpose, the Union Ministry has set up institutions like All India Council of Technical Education and the National Council of Educational Research and Training which provide guidance to the States in the field of education.

4. Direction:

The role of the Education Department in the Ministry of Human Resource and Development is to give proper direction for carrying out the educational plans and policies. The Central Government also directs and guides the State Governments, local bodies and private enterprise so as to encourage education on the right track. This is being done by the Ministry of Human Resource Development through the Central Advisory Board of Education (CABE).

5. Control:

The Central Government exercises considerable control on education by allocating proper grants to the states, local bodies and private agencies for the development of educational programs made by the states.

6. Pilot Projects:

The Ministry of Education under the MHRD undertakes a large number of pilot projects like rural universities, regional institutes, curriculum reform and text-books etc. In this way, the Ministry aims an establishing an egalitarian society in the country.

7. Clearing-house Role:

Ministry of Education under the MHRD, has a clearing-house role. It brings out useful information on various aspects of education. In publishes a few educational journals which have proved to be very useful in disseminating information in the country.
8. Liaison with UNESCO:
Ministry of Education carries out some programs in cooperation with UNESCO. It also takes suitable steps for the promotion and propagation of cultural contacts outside the country with UNESCO.

9. Opening Central Institutes:
The Ministry of Education is directly responsible for the running of a few Universities, National Libraries, Museums, and Central schools. So the Ministry has set up a number of advisory bodies which function in different sectors of education.

These are Central Advisory Board of Education (CABE), National Council of Educational Research and Training (NCERT), University Grants Commission. These organizations not only guide the Ministry in formulation of its plans and policies, but also help in implementing its programme and schemes in their own way. The Central Advisory Board of Education (CABE) is the oldest Board and till 1949, it was the only body which considered the National problems of education and rendered advice to the Central and State Governments. The Board is presided over by the Union Minister of Education and includes all State Education Ministers as members. There are also representatives of the Universities and representatives of various educational bodies on this body. The Board provides a common platform, a Nation-wide cross section of representatives hailing from various sectors of education whose deliberation and decisions emerge out of the cross-fertilization of rich ideas and long experiences. This helps immensely the formulation of sound educational policies and programs.

However, the Body is much helpful in bringing official and non-official members to take part in the consideration of educational problems and renders educational advice to the Central and State Governments on issues, which are of importance in Formulating educational policies and programs. It has been said earlier that the Department of Education is one of the constituent part of the Ministry of Human Resource Development. The Department of Education has its own Secretariat. It is headed by the Secretary who is assisted by one Special Secretary for Higher Education, Additional Secretary and Educational Advisor for Technical Education. The Department is organised into Bureaux, Divisions, Desks, Sections and Units. Each Bureaux is under the charge of a joint Secretary/Joint Educational Advisor assisted by divisional heads.

At the Centre, the Minister for Education controls the educational policy. He is assisted by one or two Deputy Ministers according to need. The Union Minister of Education has to coordinate the educational policies and programs of various states. The Educational Advisor is the administrative head of the Ministry. He is also the Secretary to the Government of India in the Education Department and the Principal
Advisor to the Minister on all matters of policy and administration. Being an eminent educationist, he gives advice to the Ministry of Education regarding the educational planning, organization, direction, control etc.

**Definition of Human Resource Development**

There are various definitions of HRD, which differ in focus, purpose and goals according to the context. Despite numerous attempts in literature to define HRD, a consensus on a specific definition does not exist. However, two strands of definitions can be identified: one referring to a broader and the other to a narrower understanding of HRD. In the broad sense HRD seeks to develop people’s “knowledge, expertise, productivity and satisfaction, whether for personal or group/ team gain, or for the benefit of an organization, community, nation, or ultimately, the whole of humanity.” (McLean & McLean 2001).

In the narrow sense HRD is used as a generic term for systematic and planned activities implemented by an organization to enhance the professional qualifications of its employees with regard to the objectives of the organization. This interpretation of HRD is usually equated with Training and Development and forms the most widely practiced one within organisations (O’Donnell, McGuire & Cross 2006).

Apart from the different understandings of HRD there is also confusion over the boundaries delineating Human Resource Development from Human Resource Management (HRM). The terms HRM and HRD are often used interchangeably, both in theory and practice (O’Donnell, McGuire & Cross 2006). Usually, however, HRD is considered a subset of HRM. In order to make a clearer distinction between these two terms, McLagan (1989) has delineated the various dimensions and functions of both in the so-called “human resource wheel”. The functions of HRD depicted in the wheel can also be found in the most popular among the definitions of HRD, defining it as “the integrated use of training and development, organization development, and career development to improve individual, group and organizational effectiveness.” (McLagan 1989).

### 13.4 FUNCTIONS OF HUMAN RESOURCE DEVELOPMENT

According to McLagan’s human resource wheel, HRD comprises three distinct functions: training and development, organization development and career development.
Training and Development

Training refers to reactive and short-term activities that focus on changing or improving knowledge, skills or attitudes of individuals to perform a particular job or task. These activities mostly comprise skills, which are immediately needed and have an immediate benefit, whereas development activities concentrate on new skills and abilities aiming for future job opportunities. Usually Training and Development (T&D) measures comprise three major competence areas:

- Methodological competence (teaching, administration, IT-Systems, Finance, Legal know-how, Safety and Security, etc.)
- Self-confidence and social competence (personality and soft skills, Time management, Work-Life Balance, languages, etc.)
- Management competence (Leadership development, project management, etc.)

Another effective T&D tool regards employee orientation or induction, where a new employee learns about the organizational values, norms and tasks. The induction of new employees includes activities such as:

- the mentoring by a colleague of the same hierarchy level that cares for the new colleague and is responsible for his/her integration or
- a well defined induction program for the first months of employment or
- Simply an “employee handbook” to facilitate the orientation.

Furthermore, various individual measures such as on-the-job training, mediation, mentoring, coaching and counselling for organizational units, project groups or individuals are included in T&D actions. While coaching refers to activities where employees are treated as partners in achieving both personal and organizational goals, counselling supports employees to deal with personal problems that could prevent them to achieve these goals (Böckelmann, Reif, Fröhlich 2010; Werner & DeSimone 2012).

Organization development

The second functional area of HRD refers explicitly to the development of the organization. Its purpose is to improve the relationships and processes between and among units, groups and individuals. Organizational development activities relate more to long-term strategies aiming for a holistic development of the organization in order to increase its overall efficiency (Werner & DeSimone 2012).

Career development

Career development includes both career planning and career management. Career planning refers to skills assessment through
counsellors, who assist employees in pursuing their career plans. Career management on the other hand is responsible for actually taking the necessary steps to achieve these plans. In the university context the tenure track model is one example of designing adequate career paths for university teachers to eventually obtain a high level of professional stability (Werner & DeSimone 2012).

Ultimately, all HRD measures intend to cause a greater efficiency and effectiveness through fully committed and skilled employees, who perform their work in alignment with the goals of their organization.

**Purpose of HRD**

The three core functions of HRD perfectly illustrate that HRD affects both the development of individuals and organizations. Therefore, the purpose of HRD is twofold. One the one hand it provides opportunities for employees to improve their skills on the other hand it aims for an efficient utilization of human resource in order to meet organizational objectives. The HRD discourse is dominated by the instrumental understanding of HRD that puts emphasis on organizational goals and economic performance. Some scholars criticize that HRD puts the interests of the organization above the individual benefit and thus turning the organization into the main beneficiary of HRD activities. At best, organizational and personal needs match, resulting in a mutual gain agenda (O’Donnell, McGuire & Cross 2006).

### 13.5 IMPORTANT FUNCTIONS AND CONTRIBUTIONS OF THE UGC

What is UGC and what is the full form of UGC? These questions can be heard from many students who continue their educational journey to a higher level. UGC full form is ‘University Grants Commission’. Now, let us go through the passage by which the country acquired the UGC or University Grants Commission India and know when was University Grants Commission UGC was set up. The depiction of UGC we have today is the result of numerous intense steps taken before and after the Indian Independence. Come, let’s become a part of the establishment journey of University Grants Commission.

1. The **first attempt** to have an education system was made in the year **1944** with the **Sargent Report**. It was the Report of the Central Advisory Board of Education on Post-War Educational Development in India.

2. Through the recommendation, the **University Grants Committee was formed in 1945**, which took upon the responsibility of supervision of three Central Universities of Aligarh, Banaras, and Delhi.
3. In the year 1947, the committee got the responsibility to control all the universities of that era.

4. In 1948, the University Education Commission was set up, whose chairman was Dr. Sarvepalli Radhakrishnan. The commission suggested that the existing University Grants Committee should be transformed into University Grants Commission India like the UK.


6. And in November 1956, UGC (University Grants Commission) was formally established as a statutory body of the Government of India via ‘University Grants Commission Act, 1956’ of the Parliament. The vision was to supervise the coordination, determination, and maintenance of standards of university education in our country.

7. Thereafter In 1994 and 1995, UGC introduced six centres at Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bangalore to control the region-wise education system in India. Currently, the head office is locating at Bahadur Shah Zafar Marg in New Delhi.

**The main aim & role of UGC in higher education**

The main aim & role of UGC in higher education is to provide funds to universities and coordinate, determine & maintain the ethics in institutions of higher education. The commission upholds the interpretation among the universities, government and the community. UGC has also set some standards for the universities for being UGC Approved Universities. With the growth of higher education in India, many top, medium, and small universities are being established day by day. Among these universities, there are many universities that are fake and not fit as per the UGC standards. Therefore, the University Grants Commission has released the list of Fake Universities in India to help the students to recognize these rejected universities.

**Major UGC Activities and Functions of University Grants Commission**

- Promote and coordinate university education.
- Frame rules on minimum standards of education.
- Setting standards for examination like **ICAR NET, UGC NET & CSIR UGC NET**
- Scrutinize growth in the field of college and university education.
- Allow grants to the universities and colleges.
Maintain connection between the Union and State Governments and institutions of higher education.

Suggest mandatory procedures to Central and State governments to make positive changes in University Education.

**Objectives of UGC.**

The main objectives of the UGC are to coordinate among universities; allocate and *disburse* government grants to universities and higher educational institutions and take appropriate steps for the promotion and maintenance of standards of higher education in Nepal.

Activities and Programs to realize its aim of determining and maintaining the educational standards of the university, the University Grants Commission -

- Allocates grants to the universities and colleges out of its own funds for their development or other general purpose.
- Advises the central and state government on disbursing grants to the universities out of the Consolidated Fund of India.
- Advises any authority on the establishment of new university or on the proposal seeking expansion of any university.
- Collects information on university education in India and in other countries.
- Seeks information from the universities from time to time. The information may range from the financial position of the university, their various branches of learning to the rules and regulations followed in a particular university.
- Imparts education to the students in various streams through its Country wide classroom teachings and a four-year old 24 hours educational channel 'Vyas'.
- Conducts National Eligibility Test (NET) through its National Educational Testing Bureau in a bid to determine eligibility for lectureship. It also awards Junior Research Fellowship (JRF), which has been set as the minimum standards for Indian nationals to enter teaching profession and research. Humanities (including languages), Forensic Science, Computer Science, Social Sciences, Environmental Sciences, and Applications and Electronic Science are the subjects in which a student can appear for a JRF.
- The University Grants Commission has recently launched an 'e-scripting' course in television for all those students who want to make a career in broadcast media. The course is being run by its Consortium of Educational Communication, an Inter University Centre of the UGC on electronic media.
13.6 IMPORTANT FUNCTIONS AND CONTRIBUTIONS OF THE NCERT

The National Council of Educational Research and Training was established in New Delhi on 1st September, 1961 for providing academic support in improving the quality of school education in India. It is the academic adviser to the Ministry of Human Resource Development (HRD) of the Government of India. It is concerned with all problems of school education in the country, and endeavors to improve such education through developing various programmes of research, publication, extension training. NCERT also provides technical advice to states as to how to improve the standard of state science exhibitions and their exhibits for national science exhibitions.

NCERT has the National Institute of Education located at Delhi. NCERT has a large publishing house. It published model text-books, hand-books, guide books and children’s literature or supplementary reading materials. NCERT possesses a production workshop with huge qualities of materials flowing in and flowing out. The central Institute of Education which is a constituent college of the University of Delhi maintained by the NCERT and provides facilities for courses of study leading to the B.Ed and M.Ed degrees. NCERT maintains four regional colleges of education at Ajmer, Bhopal, Bhubaneswar and Mysore. NCERT assists several states in their curriculum development, writing of text books and reviewing of school text-books.

The success of the NCERT will depend on the extent to which it gains confidence of the entire country and gets accepted by the professional group of various states in the field of school education. The impact of NCERT text books on the classroom practices has been tremendous. Beside CBSE affiliated schools, the organizations like the Kendriya Vidyalaya Sanghatan (KVS) and the Navodaya Vidyalaya Sanghatan use NCERT text books. One hopes and wishes that the NCERT’s vision is spelt out soon through a policy decision/declaration in which all undefined aspects of text book preparation and production are spelt out clearly.

Establishment

Ministry of Education of Indian Government established NCERT in 1961. NCERT is an autonomous-organization, working as an academic using of the Ministry of education. It assists the said Ministry in the formulation and implementation of its policies and programmes in the field of education. It is expected to encourage student teachers and teacher educators to conduct educational research. In order to fulfill these maintain objectives, it has established National Institute of Education (NIE) at Delhi and four regional colleges of education at Ajmer, Bhopal, Bhubaneswar and Mysore. It also works collaboration with the departments in the states, the universities and institutes, following objectives of school education. It also maintains close-contact with similar national and international institutions throughout the world. It communicates result of its researches to a common man by publishing books and journals.
The establishment of NCERT in 1961 was a major step taken for the development of school education which involves teacher education also. Amongst the significant contribution of NCERT are:

- Revamping of Elementary and Secondary Teacher education curriculum.
- Reorganizing of student teaching and evaluation.
- Institution of All-India surveys on teacher education.
- Focus on continuing education of teachers through establishments of centers of continuing education.
- Recognition to contributions to education by outstanding school teachers and teacher educators through a scheme of national awards.

Structure

The general body is the policy making body of the NCERT with the Union Minister for Human resource Development as its president. All the Ministers of Education in the states and union territories are its members. Besides, experts in the field of education are also nominated as members. Its membership pattern helps in taking policy decisions at the highest level.

The governing body of the NCERT is the Executive Committee, again with the Union Minister for Human resource Development as its ex-officio president. The union minister for education is its ex-officio vice president assisting the executive committee is three standing committees dealing with finance, establishment matters and programmes.

The principal executive and academic of the NCERT is the director who is assisted by the joint director and the secretary. All of them are appointed by the government of India.

Objectives of NCERT

To launch, organize and strengthen research works in various aspects of education.

To ensure success of the process, a good no of curricular/learning materials have to be brought out by the NCERT.

To arrange for pre-service and in-service training at the higher level.

To provide guidance and counselling services on large scale.

To establish a National Institute of Education and manage for the development of research and higher training for educational administration and teachers.

To publish necessary textbooks, journals and other literature for achieving the objectives.
To organize extension centres in training institutes with the cooperation of state governments and extend facilities pertaining to new methods and technologies among them.

Major functions of NCERT

The functions of NCERT broadly relate to (a) research and development, (b) in-service and pre-service training, and (c) extension and dissemination work - all these tuned to achieve the main objective of improving the quality of school education.

The NCERT, therefore

Develops curriculum, instructional and exemplar materials, methods of teaching, techniques of evaluation, teaching aids, kits and equipment's, learning resources, etc.

To monitor the administration of NIE/ Regional colleges of education.

To prepare and publish study material for students and related teacher’s handbooks.

Organizes pre-service and in-service training of teachers, teacher educators and other educational personnel;

To undertake aid, promote and co-ordinate research in all branches of education for improving school-education.

Conducts and promotes educational research.

To search talented students for the award of scholarship in science, technology and social sciences.

Disseminates improved educational techniques and practices and research findings.

To undertake functions assigned by the Ministry of education (now HRD) for improving school-education.

Acts as a cleaning house for ideas and information on all matters relating to school education and teacher education.

Constituent units

The National Council of Educational Research and Training (NCERT), with six constituents has been serving the cause of qualitative improvement of school education since its inception in 1961.

The constituents of NCERT are:
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- Fourteen departments of the National Institute of Education (NIE) at NCERT headquarters, New Delhi.
- Central Institute of Educational Technology (CIET), NIE campus, New Delhi.
- Pandit Sunderlal Sharma Central Institute of Vocational Education at Bhopal.
- Educational Research and Innovation Committee (ERIC) at NIE campus, New Delhi.
- Four Regional Institutes of Education at Ajmer, Bhopal, Bhubaneswar and Mysore.

The programmes formulation is based on the National Policy of on education, interactions with the state education authorities, assistance sought by the central educational organizations, and the assessment of educational needs of the country for qualitative improvement of school education by the faculty of the NCERT.

National institute of education (nie)

The NIE’s activities are mainly confined to (a) research and development (b) in-service training and (c) publishing and dissemination programmes. The NIE also develops prototypes of science kits which are in fact mini-laboratories for schools. Other important areas of its work are the non-formal education for out-of-school children, early childhood education, and education of the disabled and programmes for the educationally backward minorities.

In order to fulfill the objectives of NCERT, NIE functions through nine departments, seven units and two cells as under:

Departments of NIE
- Academic Departments, Production Departments, Department of Math’s Education, Department of Textbooks, Department of Teacher Education, Department of Teaching Aids, Department of Educational Psychology
- Publication Department, Department of Educational Psychology, Workshop Department and Department of Text-books.

Units of NIE
- National Talent Search Unit, Survey and Data Processing Unit, Policy, Planning and Evaluation Unit, Library and Documentation Unit, Vocationalisation of Educational Unit, Examination Reform Unit and Examination Research Unit,

Cells of NIE
- Primary Curriculum and Journals Cell
- Central institute of educational technology (ciet)

The CIET is the sixth constituent unit of the NCERT. It aims at promoting the use of educational technology, particularly mass media, for improving and spreading education in the country, and for developing an alternate system of education.

The CIET develops (a) software in mind educational needs, (b) trains personnel working in the field of educational technology, (c) conducts research and evaluation systems, programmes and materials, (d)
The CIET is equipped to take up programmes covering most of the areas of educational technology, viz., distance education, educational television, radio, films and low cost material.

Functions of CIET are as under:

· To encourage the use of educational technology in the spread of education.

· To organize training programmes in connection with school-broadcasting and educational television.

· To develop learning aids based on educational technology.

Regional institutes of education (rie):

The council has four Regional Colleges of Education (RCEs) one at Ajmer, Bhopal, Bhubaneswar and Mysore. These campus colleges with the demonstration multipurpose schools attached to them. Such schools help the faculty to develop methodologies and test them in the actual classroom situation. Each college has modern laboratories, well-equipped library and residential quarters.

All the RCEs conduct in-service training programmes both for school teachers and teacher educators. Besides teaching and extension work, the colleges also take up research and development programmes. Now they are converted in Regional Institutes of Education.

Research and professional growth

The Educational Research and Innovations Committee (ERIC) of the NCERT funds research programmes taken up by scholars both within and outside the council. The projects, however, are to have a direct bearing on either school education or teacher education. The ERIC also holds periodic conferences of educational research workers. Having funded publication of surveys of educational researches in India earlier, it has now taken upon itself the task of compiling such research volumes as well.

The NCERT offers financial assistance to professional associations in the field of education for holding annual conferences and publishing journals.

Publications

The publishing programme of the NCERT is a part of its total effort to improve the quality of school education. The NCERT textbooks published in English, Hindi and Urdu languages have the unique distinction of being at once attractive and inexpensive. These textbooks are freely adopted by states under their nationalized textbook programme. They are also used widely in schools affiliated to the Central Board of Secondary Education, Kendriya Vidyalayas, Jawahar Navodaya Vidyalayas, Tibetan schools and several public schools. The NCERT brings out a wide variety of publications such as (a) research literature, (b) school textbooks including workbooks and teachers guides, (c) general books for children of different age groups, and (d) educational journals viz., Indian Educational Review (quarterly), Journal of Indian Education and Bharatiya Adhunik Shiksha (bi-monthlies), School Science (quarterly), The Primary Teacher
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and Primary Shikshak (both quarterlies), and NCERT Newsletter and Shaikshik Darpan (both news magazines primarily meant for in-house circulation.

The NCERT also brings out supplementary readers under the ‘Reading to learn’ and National Integration Series. These books are specially written keeping in view the needs of school children, to promote a healthy reading habit in them.

The NCERT develops ‘National Curriculum Frameworks’ in which, among other things, the policy directives of the National Policies on Education are kept in view. The textbook development programme of the NCERT is supposed to be guided, inter alia, by the provisos of the National Curriculum Framework. Among other things, the societal concerns mentioned in the National Curriculum Framework should find reflection in the textbooks developed by the NCERT.

International recognition

The NCERT’s international cooperation ranges from working with the United Nations institutions like UNESCO, UNICEF, UNDP, UNFPA etc., to assisting third world countries. The NCERT is one of the major institutions to assist the Ministry of Human Resource Developing for implementing cultural exchange agreements between India and other countries. The NCERT has been implementing a number of UNICEF assisted and UNESCO sponsored programmes and project with the help of states and union territories. The NCERT is also implementing and monitoring the UNFPA funded project on population education in both the formal and non-formal education sectors.

Over the years the NCERT has stimulated professional growth of teachers, teacher educators, educational administrators and other educational personnel by involving them in most of its programmes including seminars, workshops, conferences and orientation programmes-through which it works. The NCERT’s work covers the entire spectrum of school education ranging from planning to evaluation. Its programmes benefit all the children from 3 and half to 18 years of age and also those who aspire to be teachers or are already in the profession.

Programmes and achievements

NCERT’s programmes are within the parameters of school education. A interface in the area of vocational education between the NCERT and the UGC is already in operation. The NCERT is also collaborating with IGNOU in training courses through distance education mode. It has been involving the Directorate of Adult Education in organizing programmes for training the faculty of District Resource Units of the District Institutes of Education and Training (DIETs) and principals of DIETs.

The NCERT-CIET contributes substantial number of Educational Television and Radio programmes for children and teachers in the context of the Programmes of Mass Orientation of School Teachers (PMOST). The NCERT and the Doordarshan collaborated effectively. With the main emphasis on universalization of elementary education, NCERT has
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organized Special Orientation of Primary Teachers (SOPT) in collaboration with the respective states. The NCERT has been now advising and assisting the states under the Centrally Sponsored District Primary Education Programme.

The department of women studies set up in the NCERT to formulate and implementing projects/programmes for promoting education for girls, who constitute a major segment of non-enrolled population has conducted studies and developed instructional strategies for them.

NCERT has been providing technical support to the states in the planning and implementation of various programmes to promote vocationalisation at the plus two stages. It has also been engaged in development of competency-based curricula for different vocational courses, development of guidelines for implementing different aspects of vocationalisation of education, development of syllabi and instructional materials, training of vocational teacher educators, teachers and other personnel. The NCERT has developed a framework for semesterisation in collaboration with Boards of Secondary and Senior Secondary Education.

NCERT has also developed conceptual materials related to educational evaluation, preparation of criterion-referenced texts and the training of test item writers in different subject areas. It has also developed a sample cumulative card along with procedures for maintaining records of pupil’s achievement and guidelines for introduction of grading and scaling in examinations. NCERT has also undertaken a programme to identify talented children in rural areas as per requirement of admission to Navodaya Vidyalays.

13.7 IMPORTANT FUNCTIONS AND CONTRIBUTIONS OF THE NCTE

NCTE forms an extremely critical structure of the Indian government's National Curriculum Framework for Teacher Education 2009, and has been the organization that developed the year 2009 draft of the same framework. As of 2007, the NCTE has its headquarters in New Delhi apart from regional representations in many other cities. Four official 'Regional Committees' of NCTE operate from Jaipur, Bangalore, Bhubaneswar and Bhopal handling the Northern, Southern, Eastern and Western regions respectively. The councils are responsible for recognizing 'teacher training institutions'. It is reported that as on 1 January 2007, "7461 teacher training institutions offering 9045 courses have been recognized by NCTE with an approved intake of 7.72 lakh teacher trainees." NCTE completed and recognized the revised Regulations 2014. Such includes:

a) Establishment of Teacher Education in Composite institutions that consists of multi-disciplinary or multi teacher education programs.

b) Each programme curriculum gives importance to Yoga Education, ICT, Inclusive education etc.
e) Open and Distance Learning (ODL) has developed and improved in performance due to in-built quality assurance mechanisms.

**National Council for Teacher Education (NCTE)** is a statutory body of Indian government set up under the National Council for Teacher Education Act, 1993 (#73, 1993) in 1995 is to formally oversee standards, procedures and processes in the Indian education system. This council functions for the central as well as state governments on all matter with regard to the Teacher Education and its secretariat is located in the Department of Teacher Education and National Council of Educational Research and Training (NCERT). Despite the successful functioning in terms of educational field, it is facing difficulties in ensuring the maintenance of the standards of teacher education and preventing the increase in the number of substandard teacher education institutions in the country

**Objectives**

1. To achieve planned and coordinated development of teacher education system throughout the country.
2. To regulate and properly maintain the Norms and Standards in the teacher education system and for matters connected therewith.
3. It aims at training individuals for equipping them to teach pre-primary, primary, secondary and senior secondary stages in schools, non-formal and part-time education, adult education (correspondence) and distance education courses.

**Functions**

- Undertake surveys and studies pertaining to all aspects of the teacher education and publish the corresponding results.
- For the preparation of suitable plans and programs regarding the field of teacher education, it makes recommendations to both the state and central governments, universities, University Grants Commission (UGC), and other recognized institutions.
- it co-ordinates and monitors the teacher education system throughout the country.
- it lays down the guideline for the minimum qualifications need for an individual to be a teacher in schools and recognized institutions.
- it lays downs guidelines for the provision of physical and infrastructural facilities, staffing pattern etc. for the compliance by recognized institutions.
- it lays down standards with respect to examinations, the major criteria for such admission as well as schemes for courses or training.
it promotes and conducts research and innovation in schools and recognized institutions and then disseminate the results thereof.

- it examines its own laid-down guidelines, norms and standards for the improvement.
- it identifies the recognized institutions and set up new institutions for the developmental programs of teacher education system.
- it takes up necessary steps for the prevention of the commercialization of teacher education.
- it also performs other function that are entrusted to it by the central government.

**Programs Recognized**

- Diploma in early childhood education programme leading to Diploma in Pre-school Education (DPSE).
- Elementary teacher education programmes leading to Diploma in Elementary Education (D.EI.ED).
- Bachelor of elementary education programme leading to Bachelor of elementary education (B.EI.ED) degree.
- Bachelor of Education Programme leading to bachelore of education (B.Ed) degree.
- Master of Education Programme leading to Master of education (M.Ed) degree.
- Diploma in Physical Education Programmes leading to Diploma in Physical Education (D.P.Ed).
- Bachelor of Physical Education Programmes leading to Bachelor of Physical Education (B.P.Ed) Degree.
- Master of Physical Education Programmes leading to Master of Physical Education (M.P.Ed) Degree.
- Diploma in elementary education programmes through Open and Distance Learning System leading to Diploma in Elementary Education (D.EI.Ed).
- Bachelor of education programmes through Open and Distance Learning System leading to Bachelor of Education (B.Ed) Degree.
- Diploma in Arts Education (Visual Arts) programme leading to Diploma in Arts Education (Visual Arts).
- Diploma in Arts Education (Performing Arts) programme leading to Diploma in Arts Education (Performing Arts).
- 4-yr integrated programme leading to B.A.B.Ed/B.Sc.B.Ed Degree.
- Bachelor of Education Programme 3-yr (Part-Time) leading to Bachelor of Education (B.Ed) Degree.
- 3-yr integrated programme leading to B.Ed.M.Ed.(Integrated) Degree.
National Institute of Educational Planning and Administration was established in the year 1962 as UNESCO Asian Centre for Educational Planners, Administrators and Supervisors which later became the Asian Institute of Educational Planning and Administration in 1965, which was later converted into the National Staff College for Educational Planners and Administrators in 1973, which was again rechristened as National Institute of Educational Planning and Administration (NIEPA) in the year 1979. In 2006, NIEPA was given the status of a Deemed to be University.

**Departments**

National Institute of Educational Planning and Administration has eight different academic departments and two centres for the better governance and management. These are-

- **Department of Educational Planning** – It is one of the fundamental divisions of NUEPA. The main function of the department is the integration of inputs, processes and products of planning at all levels. With the increasing emphasis on education as a means of reducing poverty and promoting sustainable development, the Department considers the expanded scope of educational planning not only to cover the institutionalization of strategic planning at the macro level but also promoting decentralization and use of local level planning techniques such as school mapping, micro planning and school improvement planning for improving quality of investment in education.

- **Department of Educational Finance** – The function of this department is conduct and promote research on economic and financial aspects of education at all levels. The department focuses its activities like research, teaching and training, around issues relating to public and private financing of education. Department School and Non-Formal Education – This department focuses on critical issues of school education, non-formal and adult literacy. Research studies is conducted in various areas to develop and improve school education in India. Besides conducting research and developmental programs, the department extends support to the state and central government in formulating and implementing plans and policies.

- **Department of Educational Management Information System** – To strengthen the database and management system on education in India, the Department undertakes research, capacity building activities and provides technical advice. The Department has also taken the responsibility for strengthening the management information system of secondary education. It has developed an information system, called DISE, to collect and compile detailed information on all schools in the country. District Information System for Education (DISE) is covering unrecognized schools and recognized and unrecognized madrasas since
2010-11. The Department also conducts conferences, seminars, workshops and research with regard to educational management information system.

- Department of Educational Administration – This department focuses on training and research on educational management and also planning and management of resources in education.
- Department of Educational Policy – The main activity of the department is training, research and dissemination. The Department stimulates discussion on policy issues. It also conducts short term courses.
- Department of Higher and Professional Education – This department has constantly provided research support and policy advice to the Ministry of Human Resource Development, Government of India. It has provided academic support to regional conferences of UNESCO leading up to the world conference on Higher education and Planning Commission.[14]
- Department of Training and Capacity Building in Education – Its mission is to expand the scope and coverage of training programs and capacity-building initiatives of NUEPA. The aim is to create more stable and dedicated institutional arrangement for trained teams to help improve the design, implement, and monitor and evaluate educational policies, plans and programs.
- Centre for Policy Research in Higher Education
- National Centre for School Leadership

Programs
- Master of Philosophy (M.Phil)
- Doctor of Philosophy (Ph.D)

**Check Your Progress: 13**

**Notes:** a) Write your answers in the space given below.
   b) Compare your answers with those given at the end the unit.

1. Write down any three significant contribution of NCERT

**13.9 LET US SUM UP**

In this unit we have discussed about the Statutory Bodies in the Field of Education, the important functions and contributions of the MHRD, UGC, NCERT, NCTE and NIEPA in detail.

**13.10 UNIT END EXERCISES**

1. Discuss the Statutory Bodies in the Field of Education
2. Discuss the Important functions and contributions of the MHRD
3. Discuss the Important functions and contributions of the UGC
4. Discuss the Important functions and contributions of the NCERT
5. Discuss the Important functions and contributions of the NCTE
6. Discuss the Important functions and contributions of the NIEPA

13.11 ANSWERS TO CHECK YOUR PROGRESS

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13.12 SUGGESTED READING


UNIT 14 - QUALITY IN EDUCATION

Structure
14.1 Introduction
14.2 Objectives
14.3 Input –Process –Output Analysis
14.4 Concept of Total Quality Management (TQM)
14.5 Supervision and Inspection
14.6 functions
14.7 Accreditation and certification
14.8 Let us sum up
14.9 Unit end exercises
14.10 Answers to check your progress
14.11 Suggested Reading

14.1 INTRODUCTION
Total quality management (TQM) is a term initially coined by the Naval Air Systems Command to describe its management approach to quality improvement. It has since taken on many meanings. Simply put, TQM is a management approach to long-term success through customer satisfaction. It is based on the participation of all members of an organization in improving processes, products, services, and the culture they work in.

14.2 OBJECTIVES
After going through this unit, you should be able to
• Discuss the Input –Process –Output Analysis
• Discuss the Concept of Total Quality Management (TQM)
• Analyze the Supervision and Inspection of Total Quality Management
• Understand the Functions of Total Quality Management
• Discuss the Accreditation and certification

14.3 INPUT –PROCESS –OUTPUT ANALYSIS
System approach is a term that means to do something systematically. In educational industry, to teach systematically teachers must consider input, process and output and decide objectives, contents, methods and assessment. The inputs are basically the objectives and objectified contents that teachers put in while the processes are the methods of delivery of contents. Outputs are the end-product of educational inputs and process those must be assessed based on objectives. Probably the
most difficult struggle facing the educational industry is about how the curriculum to be customized. Curriculum is the result of piecing together of a number of information including vision and mission statements of educational institutions. Objectives, contents, methods and assessment are the key elements of a curriculum. Though medical education is in the process of changing, there are big problem in undergraduate medical education due to lack of objectivity, overloaded content, improper methods of content delivery and inappropriate ways of assessment of output.1,2,3 The input, process and output must be relevant and there must have the right mix of curricular objectives, contents, methods and assessment aimed to produce competent and confident medical practitioners. This paper briefly emphasizes on the needs of alignment of key elements of a curriculum and fit these as input, process and output to meet up the system approach in education. By proper implementation of the system approach the educational managers can be able to raise the standard of education and assure the quality and excellence in performance. An input should include objectives and objectified contents. Objectives are statements of desire, expected to achieve by the learners at the end of an educational programme. The purpose of learning objective is to communicate the desire. Excessive details or a vague statement of desire is a common concern in inputs which may obscure the overall concepts or aim of the curriculum.2,4 Educational objectives are classified in three domains. Cognitive relates to thinking, affective relates to feeling and psychomotor domain relates to acting or doing. Well written learning objectives in terms of thinking, feeling and doing are the heart of any curriculum. To write an objective, educators need to considers four parts, the acronym of which is ABCD, where “A” stands for the audience or the learners for whom the objectives are written; “B” stands for behaviour which is a verb that describes what the learners will be able to think, feel and do at the end of the instruction; “C” stands for the conditions which are the circumstances under which the objectives must be completed; “D” stands for degree which are the standard or accuracy that learners have to achieve. Learning objectives should be SMART, an acronym of specific, measurable, attainable, realistic and time bounding. If objectives are identified clearly then the outcomes, which are the end results of any curriculum or programme can be pre-determined and achieved. If any part of the objective is missing from the statement, it cannot be communicated accurately and the outcome cannot be determined firmly. Contents as inputs should be matched with objectives i.e. it should be clearly correlated with the objectives which are then named as objectified contents. Objectified contents should be specified in terms of cognitive, affective and psychomotor skills learning. Content overload with unrelated specific objectives is a common concern in medical education. To select content, educators have to decide the core and optional portion of a topic or curriculum5 and should consider “Must know,,” “Good to know,” and “Nice to know” while deciding core and optional. Mastery of the core guarantees the maintenance of standard and the options offers areas to the learners for study depending on individual needs or interest. After deciding the
objectified contents, the next step is to decide the teaching methods / process for delivery of the inputs. Teaching methods may be in large group or in small group format and may be in the hospital or community settings. Depending on the settings and format, we select different audio-visual media to facilitate learning. Selection of appropriate media or activities involved in content or input deliveries have impact on learning. These activities includes structuring or designing of power point slides, example setting during presentation, enhancing key points, summarising key points before ending, interaction like eye contact/allowing questions and audibility. Good audibility includes a clearly spoken speech that is loud enough to be heard with use of varied tone and rate to hold attention. Output is the product of educational input and process which must be assessed. Teaching and assessment can be regarded as two sides of the same coin. Assessment should be guided directly by the objectives. Assessment drives learning and learning drives practice. The quality of assessment carried out to measure the output in medical school has been a growing concern for medical educators. The purpose of assessment is to grade or rank the students, pass or fail the students, provides students’ counselling and updates the course contents and teaching methods. Students counselling and updating the teaching methods based on assessment results unfortunately are not done. Objectivity, validity, reliability and practicability which are the pillars of an assessment have been found defective in medical schools. A variety of comprehensive assessment tools like multiple choice questions, modified essay questions, objective structured practical /clinical examinations, long and short cases etc. are used by the medical educators to make the assessment reliable, valid, objective and practicable in order to produce good output or competent and confident medical practitioners. Inputs, processes and outputs are system approaches in education. Objectives, contents, methods and assessments are the integral part of system approach and key elements in any educational planning which is inter-related with each other.

14.4 CONCEPT OF TOTAL QUALITY MANAGEMENT (TQM)

Total quality management (TQM) is introduced into our study. TQM is a systematic program that indicates everyone and everything in the organization is involved in the enterprise of continuous improvement. Frazier (1997) stated quality management provides a connection between outcomes and the process by which outcomes are achieved. If the cause of failures in education is a problem in design, quality management may be regarded as an ideal systemic process for managing change in public education. TQM is used to describe two slightly different but related notions. The first is a philosophy of continuous improvement. The second related meaning uses TQM to describe the tools and techniques. TQM is both a mind-set and a set of practical activities- an attitude of mind as well as a method of promoting continuous improvement.
As an approach, TQM represents a permanent shift in an institution’s focus away from short-term expediency to the long-term quality improvement. Herman and Herman (1994) stated three levels of application of quality management in education. The first level is to the management process of a school, including strategic planning, recruiting and staff development, deploying resources, and alignment of what is taught, how it is taught, and how it is assessed. The next level is teaching quality to students. Students are recognized as both customer and workers in the educational system. Administrators need to involve students in their own education by training them to evaluate the learning process and accept responsibility for their learning. Robert and Robert (1998) addressed the most influential factor in success or failure of a TQM implementation effort is universal endorsement. If management is not completely sold on TQM, it is unlikely that an implementation effort will be successful. Endorsing TQM represents a fundamental change in the way. Less than full support by anyone in the chain of authority essentially condemns the effort to failure. TQM is usually accomplished by a series of small-scales incremental projects. The philosophy of TQM is large-scale, inspirational and all-embracing, but its practical implementation is small-scale, highly practical and incremental. Solid and lasting change is based on a long series of small and achievable projects (Edward 3rd, 2002). TQM requires the change entirely for organization. Change of culture is notoriously difficult to bring about and takes into implement. It requires a change of attitudes and working methods. Two things are required for staff to produce quality. First, staff needs a suitable environment in which to work. The tools of trade, system and procedures should aid them in doing their jobs. The environment that surrounds staff has a profound effect on their ability to do their job properly and effectively. Second, encouragement and recognition of success and achievement should be deserved from leaders who can appreciate their achievement and coach them to greater success (Edward 3rd, 2002).

The customers’ focus is the priority in the set of relationship in education. The upside-down organizational focus does not affect the structure of authority in the school and college, and neither does it diminish the essential leadership role of senior managers. The inverted hierarchy emphasizes service-giving relationship and the important of the customer to the institution (Edward 3rd, 2002).

To meet the needs and wants of its customers is primary mission in TQM. Quality must be matched to the expectation and requirement of customers and clients. Quality is what the customer wants and not what the institution decides is best for them. Education faces a considerable challenge in its relationships with its external customers. Expectations are diverse and often contradictory and quality of program is often confused in the public mind with the reputation of the institution (Edward 3rd, 2002). TQM will be the result of the relative weight assigned to each of the customers at the different levels of education.
Robert and Robert (1998) indicated that in the elementary schools the most important customers are the parents of the students, the students themselves and the middle school to which the students are headed. As maturity of the students increases, the students replace the parents as the most important customer. In a training situation, the most important customer is the organization that needs the individuals trained. In addition, Edward (2002) indicated customers also include internal customers such as everyone working in a school, college or university is both a supplier of service and a customer of others. It is important to ensure internal customer function efficiently and effectively by identifying to whom people provide services.

Education is about learning. An educational institution that takes the total quality route must take seriously the issue of learning styles and needs to have strategies for individualization and differentiation in learning. Educational institutions have an obligation to make learners aware of the variety of learning methods available to them. They need to give learners opportunities to sample learning in a variety of different styles. Institutions need to understand that many learners also like to switch and mix “n” – match styles and must try to be sufficiently flexible to provide choice in learning. Learner is the primary customer and it will not possible to claim achievement of total quality without meeting individual needs (Edward 3rd, 2002). It will be fundamental to utilize principles of TQM in education and to start with “all shared succeed” to establish mission between learners and their teachers. The framework for implementation of TQM was presented by Dr. W. Edwards Deming. TQM principles could be used as a checklist for implementation (Robert and Robert, 1998):

### 14.5 SUPERVISION AND INSPECTION OF TQM

Education is aimed at imparting knowledge and skill, and inculcating human values which help in personal and professional growth. It is the ‘education’ which constitutes an essential pre-requisite for achieving national goal of inclusive development and equitable justice to the society at large. Giving quality education is the priority of each and every nation in the world because the quality of education forms the basis of socio economic and personal growth, an indicator of national progress. Of late, there have been high expectations from schools in terms of transparency and accountability to improve the quality of education. This demand has augmented the need for better supervision of in house activities of schools. Emphasizing the role of supervision for teachers, Lockheed and Verspoor (1991) observed that the quality education partly depends on how well teachers are trained and supervised since they are one of the key inputs to educational delivery. The word supervision is a coinage from two Latin words: 'super' and 'video'. Super means 'over' or 'above', while video means 'to see'. Therefore, taken together, super-video simply means 'to see from above' or to 'oversee' (Marecho, 2012). Generally
Speaking, Supervision may be defined as “to oversee, to superintend or to
guide and to stimulate the activities of others, with a view of their
improvement” (Douglas & Bent, 1953). According to Mohanty (2008), in
education supervision carries the same general concept and is applied to
both academic and administrative tasks. Administrative functions of
supervision included providing physical facilities to the teachers, checking
the safety and security of the school plant, maintaining proper service
conditions and redressing grievances of teachers in time, checking the
accounts and records of the school and maintaining proper distribution of
work load. The academic tasks included monitoring of instruction,
providing guidance to teachers for improving teaching evaluation and
assessment of pupil's achievement etc. But primarily in literature,
supervision is usually applied to the activities of teaching i.e. supervision
of instruction (ibid, pp.289-290).

During the last two decades there has been a renewed interest in
supervision and monitoring of the quality of education (International
Institute for Educational Planning, 2007, p.2). The reasons provided by
International Institute for Educational Planning (IIEP) for the above
development are: • Policy focus on quality improvement of education
through quality control. • A stronger demand for accountability to derive
'value of money' invested in educational enterprise. • Various research
studies which explain the weakening of quality monitoring devices
including the professional supervision and support as one of the factors
leading to the deterioration of quality of schools. • Increasing trend towards
school autonomy which demands monitoring procedures to guarantee
standards of quality and equity across the system.

Significance of supervision has been highlighted in the Indian
Policy of Education (1986) lays special emphasis on improving the
educational system. The Programme of action (NPE, 1986) spells out the
significant role to be played by supervision in this regard” (p.94). The
Education Commission (1964–66) also rightly remarked: "Supervision is,
in a sense, the back bone of educational improvement" (ibid, p.94). The
report of the Directorate of Education (2012) suggests that a blend of
autonomy and supervision is clearly required keeping in view the past
experience and the need for school expansion to keep pace with the
changing demography as well as the current aspirations of parents.
However, the concept of supervision and the purpose it has acquired at the
practice level undermines the significance of supervision in education as
established by literature. According to Goyal (2001), the National
University of Educational Planning and Administration undertook two
National Surveys in School educational administration- the first from 1973
to 1981 (NUEPA 1973–81) and the second from 1991 to 2001 (NUEPA
1991–2001). These showed significant country wide trends with respect to
Institutional Planning, Financial Administration and other aspects of
Educational Administration which included Inspection and Supervision in
India. The study findings suggest the following aspects about the concept of inspection and supervision and the supervisory practices being followed in India:

• The terms used in the studies are 'Inspection' and 'Inspecting officers' and not supervisors. Inspection and supervision are used interchangeably. No specific definitions have been provided for both inspection and supervision. It is pertinent to mention that the existing form of Inspection report under DSEAR’1973 (Delhi School Education Act and Rules) includes a section titled Supervision/Inspection of the Academic Work (Actual teaching and its different aspects). Difference between inspection and supervision has been discussed in literature and research studies. Tyagi (2011) suggests that the difference between inspection and supervision can be understood on the basis of school functions which they cover (administrative, academic etc), purpose they seek to achieve, personnel conducting the evaluation are internal or external to the school. Inspection has been referred to the system-based assessment and evaluation of schools, teachers and students done by the local authority personnel, inspectors, and advisors. Supervision is a school based activity more concerned with the assessment of academic aspects of the institution for continuous school improvement by enhancing teaching-learning practices. Moswela (2010) also differentiated inspection and supervision on the basis of their purpose. Supervision intends to help teachers improve instruction by directly assisting them where as inspection aims to check the completion of the goals of curriculum by the teacher and in case of failure, caution them critically.

Thus, supervision is about assessing and assisting the teachers for bringing improvement in the teaching-learning process and their professional development. Supervisor is formally and officially designated person to assess and assist teachers in teaching-learning process and professional development. Inspection and supervision referred to in the studies is completely external i.e. the inspectors and supervisors are located outside the school and regular visits to schools are essential part of their mandate. Tyagi (2010) in his paper has also mentioned that supervision in India is seen as an external inspection service and that the supervisory support and academic guidance provided by inspectors to teachers in schools is inadequate. According to Tyagi, supervision practices still do not take in its purview the role of actors at the school site level (principals, teachers, community members etc.). As there is a worldwide trend to reinforce school site supervision (International institute of educational planning, 2007), more research studies can be carried out to find its effectiveness in the Indian context.

Thus, an overview of the literature and research studies on supervision in India suggests that the prime cause for the inadequacy of supervision system in India is the continuation of the traditional inspectional model of supervision. To remove weakness in the practice of supervision, current literature on supervision suggests (Mohanty, 2008; Bhatnagar and Aggarwal, 2006) the use and application of the Modern...
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concept of supervision in place of the traditional concept of Inspection. In theory, Modern Supervision has been advocated for schools which is described as objective, systematic, democratic, growth centered & productive, which accentuates the spirit of inquiry by emphasizing experimentation and continuous evaluation as compared to traditional inspctional system which is authoritarian and imposing (Burton & Bruecker, 1955, p.13). The nature and characteristics of Modern supervision which distinguishes it from the Traditional inspection as provided by Bhatnagar & Aggarwal (2006) may be stated as follows:- • Modern supervision is positive in its approach, that is, creative and constructive whereas inspection is a process of criticizing and fault finding. • Modern supervision is democratic in approach whereas traditional inspection is bureaucratic and authoritative. • Modern supervision focuses on total quality management (TQM), on the other hand traditional inspection is primarily concerned with classroom inspection and audit of accounts. • Supervision is participatory in nature while the traditional inspection tends to a 'one man show'. • Modern supervision has a continuous role to play: to stimulate, coordinate and evaluate the efforts of teachers and students, to improve the teaching-learning situation. On the contrary, inspection is of short duration. • Supervision is an informal process, on the contrary inspection is formal and fear provoking. • Modern supervision is scientific in nature. Whimsical approach of the inspector is replaced by judicious approach of the supervisor. Modern supervision is coordinating and integrating in nature. Traditional inspection on the other hand, lacks in coordination and integration of efforts. • Modern supervision employs a variety of devices like seminars, meetings, conferences, workshops, class visits, school visits, panel inspection and scientific tools of evaluation to assess the progress and quality and to arrive at measures for improvement. Inspection on the other hand, employs school visitation and class inspection by the Inspector only.

14.6 FUNCTIONS OF TQM

Educational institutions have realized that in the present-day, highly competitive, environment students can be attracted to them only by providing the best in terms of facilities and inputs. Moreover, government bodies responsible for funding are asking the universities to demonstrate their commitment to quality before approving major financial assistance. Above all, in most societies education is losing its traditional aura and the resulting de-mystification has generated an expectation that, like other forms of services, education also must be responsible to the society that supports it (Deshpande, 1994). It is significant that the demand for quality in education is coming from all concerned. Naudeau (1992) notes that “Call for quality and excellence have origins within the institution whether coming from students, faculty, administrators, or service personnel. They also come from alumni, interest groups, the community, the media and governmental bodies, in many ways, shapes and forms. Evidently the highest priority has to be given to quality assurance in education.
Cowles and Gilbreath (1993) suggest six key points in the successful implementation of TQM in an educational institution:

1. Support from the top
2. Just do it. Don’t study it to death.
3. Team building is almost as important as process improvement.
4. You need a champion.
5. Breakthrough planning helps.
6. Try the service side first.

The implementation of TQM in educational institutions is not likely to be easy, for as Crawford (1991) points out “To develop a powerful quality ethos requires not only cultural change but also staff development to appropriate levels of education and training”. He adds “experience suggests that development of TQM culture will meet with initial apathy or rejection, and take up to five years”. Many internal barriers will have to be overcome, if implementation of TQM is likely to be more successful in institutions that are to be started and those which are young or have very specific objectives, like the technical universities and the open universities. Considerable efforts may be required in the established multi-faculty conventional universities, for most of them do not have well defined mission statements, and are enmeshed in bureaucratic traditions. However, in the ultimate analysis, much will depend upon the attitudes of the management and teachers, especially the latter. It should be mentioned that the successful adoption of TQM in higher education requires deep commitments, full involvement of people, top management support, fair reward and recognition policies and training of concerned people in the concept, tools and techniques of TQM.

14.7 ACCREDITATION and CERTIFICATION

Accreditation requires the preparation of a self study report documenting the strengths and weaknesses of the academic systems. The ISO 9000 documentation is very similar to this, but only difference is that the documentation is prepared as per the standards and in case of accreditation it is as per the proforma and the information required and to be supplied are similar, like course duration, ratio of faculty members, distribution of time per week, teacher/student ratio etc.

ISO 9000 registration and certification is being done by several certified and approved agencies and hence there could be lot of subjective bias between different assessors in terms of strictness in following the standards and other issues. Whereas accreditation is done by a single agency and hence there is less cope for subjectiveness and hence can be more authentic.

ISO 9000 is more accepted by the society, parents and students as it is accepted globally as a standard for quality and better market acceptability; whereas accreditation is more acceptable for affiliating
bodies, government institutions and government in general as it is considered to be more rigorous and academic focused and plays a major role for institutions in receiving grants and other assistance.

The newer version of ISO 9000 is more user friendly in terms of reduction in the number of clauses from the early 20 to only 8 and an emphasis on a Plan-Do-Check-Act structure. They have a generic applicability and can be applied to non-manufacturing firms also. The newer version places greater weightage upon top management as they have more responsibility in the quality management system. This version gives wider coverage to quality by shifting from a focus of quality assurance system to a combination of continuous improved quality assurance and quality management system which will enhance customer satisfaction (Salleh Yahya et-al 2001).

As a result of its user friendly features, educational institutions around the globe are implementing ISO 9000. The ISO 9000 international standards are a set of written guidelines that make up a non-specific quality management system that can be applied to an organisation regardless of the product or service being provided. According to its design, ISO 9000 simply provides a framework, without changing how the organisation operates, “that ensures that nothing important is left out and that everyone is clear about who is responsible for doing what, when, how, why and where” (www.iso.org).

Check Your Progress: 14

Notes: a) Write your answers in the space given below.

b) Compare your answers with those given at the end the unit.

1. What are the six key points in the successful implementation of TQM in an educational institution?

14.8 LET US SUM UP

In this unit we have discussed about the Input –Process –Output Analysis, Concept of Total Quality Management (TQM), Supervision and Inspection, functions of TQM, Accreditation and certification in detail.

14.9 UNIT END EXERCISES

1. Discuss the Input –Process –Output Analysis
2. Write down the Concept of Total Quality Management (TQM)
3. Discuss the Supervision and Inspection of TQM
4. Describe the functions of TQM
5. Discuss the Accreditation and certification
14.10 ANSWERS TO CHECK YOUR PROGRESS

i. Support from the top
ii. Just do it. Don’t study it to death.
iii. Team building is almost as important as process improvement.
iv. You need a champion.
v. Breakthrough planning helps.
vi. Try the service side first.

14.11 SUGGESTED READING


PART A — (10 × 2 = 20 marks)

Answer ALL questions

1. Write down any two approaches to the viewing of quality in the field of higher education.
2. Who can apply for accreditation by NBA?
3. List out the four types of benchmarking.
4. What are of two main types Accreditation systems?
5. Name any two core values that NAAC strives to promote in Higher Education Institutions.
6. List out any two main components of TQM?
7. Write down any two basic objectives of academic audit.
8. List out any three popular models of quality assurance.
9. List out any two difficulties of an educational institution for a successful implementation of ISO 9000 QMS.
10. Write down any two capacities required to be built among the students by the educational institutions.

PART B (5 × 5 = 25 marks)

Answer ALL questions

11. (a) Define ‘quality control’.

Or

(b) Why is there a need for quality in higher education?

12. (a) How is quality assessed?

Or

(b) What is the concept of performance indicators?

13. (a) What are the types of quality assessment?

Or

(b) Explain the process of accreditation.

14. (a) What are the major objectives of academic audit?

Or

(b) Explain the international practices of accreditation.

15. (a) List out the factors influencing quality.

Or

(b) Describe the performance indicators of NAAC.
PART C (5 × 10= 50 marks)
Answer any THREE questions
16. Explain the new methodologies and initiatives of NAAC accreditation.
17. Explain the strategies for sustaining quality matching the global standards.
18. List out the limitations of academic audit. How will you rectify them?
19. Explain the benefits of ISO 9000 certification for educational institutions.
20. Explain capacity building model in detail