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**B.Ed.**

**Second Year - Third Semester**

# **LEARNING ASSESSMENT**



**Course - XI**  
**Second Year, Semester - III**  
**LEARNING ASSESSMENT**

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## UNIT - 1

### PERSPECTIVES ON ASSESSMENT AND EVALUATION

#### 1. What is meant by assessment.

**Ans :** Assessment is the preliminary phase in the process of evaluation. It is the gathering of all important and accurate information on students progress. Assessment is a process of professional judgement.

According Robert L.Sinn & M. David Miller, assessment of student learning requires the use of a number of techniques for measuring student achievement.

Assessment is a general term that includes the full range of procedures used to gain information about student learning and the function of value judgments concerning learning progress.

**Nature :** ❖ Assessment is key components of teaching and education. ❖ Assessment in central to every school and class room. ❖ Various techniques are organised and employed for assessment i.e. to collect information.

**Functions of assessment :** ❖ Assessment can improve cognitive ability and enhance self esteem.

❖ Assessment enhance students learning and motivation.

❖ Assessment serve to enhance students education and to improve teacher instruction.

#### 2. Define measurement.

**Ans :** Measurement is an important feature of our daily life "From birth to death" says Ross

According to R.N. Patil, Measurement is an act or a process that involves the assignment of a numerical index to what ever is being assessed.

According to Anthony J. measurement is a procedure for assigning numbers to specified attributes or characteristics of a person in a manner that maintains the real world relationship among persons with regard to what is being measured.

Prof. Richard & Lindemand defines measurement is the assignment of one of a set of number to each of a set of persons or objects according to certain established rules. The set of number depends up on the nature of the characteristics being measured and up on the type of measurement instrument is used.

Eg : Height, weigh, intelligence abilities.

#### 3. What do you mean by tests and examination what is the difference between these two.

**Ans : Test :** A test is a set of standardized or controlled occasions for responses presented to an individual with design to elicit a representative sample of his behavior when meeting a given kind of environmental demand.

A psychological test is a standardized instrument designed to measure objectively one or more aspects of a total personality by means of samples of verbal or nonverbal responses, or by means of other behavior.

**Examination :** Generally the instruction is followed by various kinds of evaluation throughout the academic schedule. Teachers who provide the instruction or involve directly in the process of instruction also devise different types of tests from time to time and evaluate the students performance. Basically they can be broadly divided into two categories of examinations i.e. internal and external.

**Test :** Test is a systematic procedure for observing and describing one or more characteristics of a person with the aid of either a numerical scale or category system. - **L.J. Cronback**

A test is a compact task or series of tasks designed to ascertain the merit or quantity of something. Educational test constitutes a series of items for which a score is obtained. Depending on how they are constructed, they can serve a purpose.

- **Dictionary of Education**

**Examination :** This term is used in schools to find out the growth of students in terms of their scholastic achievement. The examinations are conducted at different stages throughout the year.

**Types of examinations :** 1. Periodic tests/unit tests 2. Half yearly examination 3. Annual Examination

**Exam Vs. Test :** The difference between exam and test is mostly in the usage of the terms. Test and exam are most of the times used as synonyms. That is not completely wrong as in the field of education test is a series of questions that measures the knowledge of the student on a particular lesson. Exam is a more formal form of test that measures the knowledge of a student on a number of lessons.

**4. What is appraisal and evaluation what is the inter relationship among these two.**

**Ans :** Appraisal is the act of examining some one or something in order to judge their qualities, success or needs. Appraisal is an impartial analysis and evaluation conducted according to established criteria to determine the acceptability, merit or worth of an item.

Evaluation is an act or a process that allows one to make a judgement about the desirability or value of a measure. Evaluation is a process of delineating, obtaining and providing useful information for judging decision alternatives.

**Inter relation between appraisal and evaluation:**

In appraisal we examine to what extent our activity in successful in order to achieve the needs of the children. But in the case of evaluation. We know to what extent the children have understood the content that is imported to them.

**5. What are the purposes, principles and characteristics of quality assessment ?**

**Ans : Principles of assessment :** By taking into consideration the following principles, assessment can become an integrated process of determining the nature of student learning and development.

1. An assessment procedure should be selected because of its relevance to the characteristics or performance to be measured. Mostly they are based on their objectivity and convenience or accuracy. They should be related to the intended learning goals related assessment tasks.

2. Proper use of assessment procedures requires an awareness of their Implications. Assessment procedures range from very highly developed measuring instruments to rather crude assessment devices.

3. Clearly specifying what is to be assessed had priority.

4. Comprehensive assessment requires a variety of procedures. No single type of procedure is sufficient to assess the vast array of learning and development outcomes emphasized in a school programme.

5. Assessment is means to an end and not an end in itself.

It is not mere collection of data but is a process of obtaining information on which to base educational decisions.

**Purposes of Assessment :** Assessment is the process of determining the extent to which the objectives are achieved.

Assessment is a continuous and a dynamic process. Assessment helps in forming the following decisions.

**Types of decisions :** ❖ Curricular ❖ Instructional ❖ Selection ❖ personal ❖ Placement or classification

❖ It is concerned not only with the appraisal of achievement but also with its improvement.

**Characteristics of quality assessment :**

❖ It helps in discovering the needs of an individual and designing the learning experiences. ❖ It is a continuous process.

❖ It evolves procedures for improving the end product of performance. ❖ It caters to academic and non-academic subjects.

❖ Assessment serves the required purposes of educational enterprise. ❖ To achieve the criteria of assessment ❖ In enriching the content and course of study. ❖ Effective supervisory mechanism to improve the system.

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**6. Write about behaviorist, cognitivist and constructivist learning theories.**

**Ans :** Behaviourist learning theories

**Educational implications of Thorndike's Theory**

❖ A right attitude towards learning should be developed in the class room for better learning. ❖ According to Thorndike,

motives play vital role in learning. So learning should be made purposeful and goal directed. ✦ Law of effect uses rewards. In a class room application the teacher can use praise and encouragement that would bring learning

**Classical conditioning :** ✦ Repetition and habit formation is to be strengthened in the process of learning.  
✦ Children should be awarded immediately when they do well.  
✦ Bad habits can be broken by deconditioning

**Operant Conditioning theory Educational Implications :** ✦ The personality of a person manipulated through operant conditioning. ✦ Learning subjects should be arranged in order of simple to complex. ✦ The direct method of teaching foreign languages based on CR theory ✦ Children learn many interests and attitudes through conditioning at home, in the school.

**7. How do you use the theories of learning for class room assessment. How are they used for changing the culture of class room assessment.**

**Ans :** The class room assessment should be taken up in the following way.

1. We must make the children mentally prepared for the assessment. If it is so the children will actively participate.
2. The assessment should be in accordance to the physical and mental age of the children. The assessment should be in accordance to the competencies.
3. The assessment should be from simple to complex. i.e. from known to unknown. If the assessment is like this the children will actively participate in the assessment process.

**8. Write about classification of Assessment based on purpose (Interms of functional role in classroom instruction)**

**Ans :** Test and other assessment procedures can also be classified in terms of their functional role in class room instructions. The sequence in which assessment procedures are likely to be used in the class room are 1) Formative Assessment 2) Summative assessment 3) Diagnostic assessment 4) Prognostic assessment

**Formative assessment :** The assessment activities undertaken during the instructions is called formative assessment. Formative assessment is an on going class room process that keeps students and teachers informed of students progress towards achievement of learning objectives. Formative assessment is used to monitor learning progress during instruction.

**Summative assessment :** Summative assessment typically comes at the end of a course of instruction. The essential characteristic of a summative assessment is that, a judgement is made about the effectiveness of learning or instruction after the learning or instruction has taken place.

**Diagnostic assessment :** A diagnostic assessment is designed to locate the particular source of a students difficulties in learning diagnostic assessment is used for diagnosing the problems through carefully prepared diagnostic test as well as observational techniques.

**Prognostic assessment :** The assessment activities undertaken before the instruction is called prognostic assessment. Prognostic assessment is concerned with students entry behaviours. The various techniques used for prognostic assessment includes' readiness tests, aptitude tests, pretests, observational techniques and so on.

**9. Write about classification of Assessment based on 'scope' (or) write about teacher made & standardized tests?**

**Ans: Teacher made tests:** Basically teacher made tests are used to evaluate the progress of the students in school. However the specific use of tests may vary from school to school and teacher to teacher. The test results can be used for students, parents, teachers and for other administrative purposes

- These tests are very specific to their local consumption
- Easy for the students
- They are very simple to use
- Relevant to the respective curriculum
- Teachers can assess the strengths and weakness of students.

**Standardized tests :** Standardized test is a test for which

content will be selected and checked empirically uniform norms have to be established uniform methods of administration and scoring have been developed and the scoring is done with high objectivity.

The process of standardization demands a more critical analysis of the 1. Subject matter 2. rigorous planning of the test 3. More accurate construction of test items 4. analysis and refinement conditions for administration and scoring

**Preparing standardized tests :** The major stages in preparing a standardized test 1. Planning the test. 2. writing test items 3. Testing the items 4. preparing the final form 5. deriving norms 6. establishing final validity and reliability 7. scoring 8. Interpreting and using results.

**Advantages :** ✦ It is more reliable and valid ✦ A poor teacher can also administer.

#### 10. How is the assessment based on attribute measured.

**Ans:** The following are the ways of assessment based on attribute measured.

**1. Achievement assessment :** On completion of the teaching process, the knowledge gained by the students should be measured. It is called achievement assessment.

**2. Aptitude Assessment :** This assessment is used to know the natural competencies of the children. Through this we can predicate in a which field the student shines in future.

**3. Attitude assessment :** The attitude of the students towards different subjects will be assessed through standardized tests. This tells the attitude of the child towards that subject.

#### 11. Explain classification of assessment based on nature of information gathered.

**Ans : 1. Qualitative assessment :** In this assessment we can understand the attitudes, experiences, behavioural changes etc. This is individual information. We can express it in words only.

**2. Quantitative Assessment :** In this assessment we can understand the student through figures. i.e. through statistical data.

#### 12. Explain classification of assessment based on nature of interpretation.

**Ans :** Classification assessment based on Nature of Interpretation.

**Self-referenced Assessment :** The student will assess his knowledge through self referenced assessment.

**Norm - referenced assessment :** In this case the assessment is Norm referred i.e. the students will be placed in an order from top to bottom.

**Criterion - referenced assessment :** The place of the student will be assessed through standardized methods of assessment.

#### 13. Explain the classification of assessment based on context (Or) write about internal assessment and external assessment.

**Ans : Internal Assessment :** It is basically an assessment conducted by the teacher who provides instruction, designs the test on the basis of instructional objectives and evaluates to see the achievement of objectives i.e. the whole process from instruction, designing tests and assessment is done by the teacher of the same institution. It is well known that teachers are the best judges of their own students.

**Advantages :** ✦ Teachers can test what is being taught. ✦ There is more transparency. ✦ They do not have any fear or test anxiety. ✦ It is more reliable and valid in verifying the instructional objectives.

#### Disadvantages :

✦ They may be partial in giving scores. ✦ Students may take them very easy and become lenient. ✦ It becomes more objective.

**External assessment :** It is obvious that when the examinations conducted by an agency other than the institution

where they were taught, external examiners are involved in evaluation. For instance some of the projects and tests are designed and given by their teachers but an external examiner is involved in valuation.

**Advantages :** ✦ It is more objective ✦ Evaluation becomes more transparent and uniform. ✦ It avoids subjectivity.

**Disadvantages :** It will focus only on that performance on the basis of the student or the performance of the student in General. ✦ Teachers who evaluate may not know what their teachers taught

**14. How do you gather the nature of information and mode of response (or) write about oral test and written tests.**

**Ans : Oral test :** Oral tests are the oldest form of achievement tests. These tests are mostly used in lower classes. But, even in higher classes, oral tests or examinations are used in science subjects.

The teacher will carry a kind of impression through these tests.

a) Only one can be tested at a time. B) There are less advantages in it. c) Justification is not done to the students. d) Repetition of questions to different students will become a problem.

**Uses :** ✦ Comprehension is reduced ✦ Pupil's attainment can be obtained. It is Economical. ✦ It constitutes an excellent means of following the thought process.

**The Reliability and validity of oral examinations**

According to Lehman ARman cost and Stump

They said that an oral, true - False examination compared very favorably with such tests presented in visual form.

The oral trade test is of particular value in evaluating the background of job applicants

**Written Tests (Or) paper - Pencil Tests :** There are different types in written tests.

**1. Essay tests :** Essay types tests demanding long answers have ever remained the most popular form of written test of pupils achievement.

**Suggestions in constructing an essay type :**

1. The questions should be in a simple wording. 2. Choice of item should not be given. 3. Instructional objectives should be kept in mind so as to achieve the maximum content validity. 4. The item should be analyzed after administration.

**Advantages :** ✦ Guessing is avoided in this type. ✦ Fewer items can be included with in less time. ✦ The students command over the knowledge is measured.

**Disadvantages :** ✦ It encourages bluffing ✦ Lack of scoring ability. ✦ It may be seriously impaired.

**2. Short answer type :** It is in between essay type and objective. These question can be answered in a few sentences. A large number of questions covered in a short time.

**Draw backs :** ✦ Written skills cannot be measured properly. ✦ It leads to rote learning. ✦ Critical and analytical skills cannot be measured.

**Informulating questions we need :** 1. Definition 2. Purpose 3. Cause 4. Common principle 5. Effect 6. Difference

**3. Objective type :** An objective test is so named because the system of scoring is objective, rather than some what subjective as in the case of an essay test.

**Advantages :** ✦ They can easily be scored. ✦ They have higher diagnostic value. ✦ They are more valid and reliable.

**Disadvantages :** ✦ It is only superficial. ✦ It takes more time in constructing. ✦ Content validity cannot be tested.

**General suggestions for preparing objective test Items :**

1. One item of the test should not give any clue to the other. 2. The items should be clear, unambiguous 3. Interdependence should be avoided.

**15. What are the policy perspectives on examinations evaluations.**

**NPE 1968 :** In 1968 NPE. The main objective of Evaluation is that it should be reliable and valid and the evaluation process should be a continuous one.

**NPE 1986 :** In 1986 NPE it is mentioned that evaluation as a part and parcel of teaching process through evaluation. The teaching process should be improved. The evaluation process

should not test the memorization capacity of the students. The teachers, students and parents should use the evaluation process as an affective one. It should be bring out changes in the uses of teaching learning material grades should be used in the place of marks.

**16. What are the recommendations in National polices of Education and curriculum frame work 2005.**

**Ans : Vision and perspective :** ❖ To reduce of curriculum load ❖ To ensure quality education for all ❖ To Initiate certain systemic changes.

**Guiding principles :** ❖ Discuss the aims of Education. ❖ Connecting knowledge to life out side the school. ❖ Ensuring that learning is shifted away from rote methods.

**Focuson child as an active learner :** ❖ Primacy to childrens experience, their voices and participation. ❖ Highlights the value of Integration. ❖ Designing more challenging activities.

**Curricular area, school, stages and assessment**

**Langauges :** ❖ To improve three language formula. ❖ Focus on all skills.

**Mathematics :** Teaching of mathematics to focus on childs resources to think and reason to visualize abstractions and to solve problem.

**Sciences :** Teaching of science to focus on methods and processes that will nuture thinking process, curiosity and creativity.

**Examination reforms :** ❖ Flexible time limit. ❖ Examinations of shorter duration. ❖ Change in typology of questions.

**17. Explain continuous and comprehensive assessment.**

**Ans :** Continuous comprehensive assessment of the child in all aspects holds the teachers to bring changes in their teaching strategies, which would enhance the progress and may bring qualitative change and progress in the child.

**Uses of C.C.E. :** ❖ Possible to monitor all dimensions of the students. ❖ To know the strengths and weaknesses of students. ❖ Enhances various capabilities that are found in them. ❖ Useful to assess regularly the progress of the student. ❖ It gives a direction for future career selection and courses of study.

**Process involved in CCE :** Taking into account and using the various devices for CCE.

1. Assignments 2. Periodical tests and terminal examinations. 3. Scoring and reporting 4. Students profile. 5. Cumulative records 6. Health record 7. Port folios

**Use of assignments in CCE :** There are various types of assignments that can be given to the students for judging various competencies.

They could be 1) It can be a kind of assignment on extension to the classroom instruction, which provides a chance for extension. It would make them to reflect back on the class room instruction and creates a space for extended learning.

**2. Application oriented assignments :** The child will be able to take up assignments - more of application oriented and will be able do self evaluation by way of knowing his own ability to comprehend new concepts.

**3. Extensive reading of the topic :** The child will be able to read extensively the topic given for assignment and will try to read extensively the materials related to the topic.

**4. Field - based assignment :** Students develop practical skills like social behaviour, Negotiation skills and will develop documentation skills.

**Implementation of continuous and comprehensive Assessment :** The role of continuous and comprehensive assessment becomes very important when our aim is to improve learners quality in the cognitive as well as in the non - cognitive domains.

❖ Careful examination of the course, and specification of competencies to be attained by the learners in terms of knowledge, understanding, application and skill performance.

❖ Knowledge and ability to construct assessment tools that are criterion based appropriate for assessing the competencies.

❖ Careful planning of the competency based on teaching procedures. There should be congruence between teaching and assessment without which assessment would become distorted. Comprehensive assessment of competencies as well as personality traits and attitudes. ❖ The maintenance of records. ❖ Requirement of knowledge and skills of evaluation, commitment and assistance to provide remedial teaching on part of the teacher.

## UNIT - 2

### FORMATIVE AND SUMMATIVE ASSESSMENT

1. **Explain in detail about the formative assessment what are the Major Barriers, for its wider use? What is the role of students and teachers in formative assessment.**

**Formative Assessment :** The use of assessment to provide feedback to teachers and students in the course of learning is called formative assessment. Information gained through informal assessments provides opportunities for teachers to make adjustments to the ways in which they deliver instruction. For example, they may reteach a concept, use alternative instructional approaches, or offer more opportunities for practice and reinforcement. These activities can lead to improved student success.

Formative assessment centers on active feedback loops that assist learning. Teachers use formative assessments both to provide feedback to students about their progress and to guide decisions about next steps in the learning process, thereby closing the gap between the learner's current and desired states. Popham defines formative assessment as "a planned process in which teachers or students use assessment - based evidence to adjust what they are currently doing". The operative word in this definition is process, in that formative assessment is happening throughout the learning, as opposed to summative assessment, which is often a one-time event that occurs at the end of a learning unit and is used to make judgments about student competence.

**Formative assessment is conducted to Monitor the instructional process to determine whether learning is taking place as planned.**

- Ebel.R.L and D.A Frisbe (1986)

**Formative assessment occurs over a period of time and monitors student progress. - W.Wiersima & S.Gjurs**

**Purpose of Formative Assessment** According to Lang, et al, the formative assessment process came about from educators working on ways to accelerate student achievement and to help predict how well students will perform on standards - based statewide tests.

Lang is right on target, however, the general perception often is that standard- based learning and formative assessments should only be used in subjects/courses that are assessed by state or district assessments. In actuality, formative assessment should be implemented across all courses/subjects that students take because, it provides an accountability system truly based on three components that all state/district wide assessments are determined to measure, yet rarely do.

1. Instructional strategy (teaching)
2. Student mastery and
3. Curriculum alignment

In 1989, Royce Sadler established the essential purpose of formative assessment as the means to identify the gap between a student's current status in learning and some desired educational goal.

However, the purpose is really more detailed than that. According to Rassi the purpose of formative assessment is to monitor students' acquisition of knowledge and skills during educational preparation, that is, during the time when students' basic and professional knowledge, skills, and attitudes are being 'formed'. Ongoing assessment helps students and their academic and clinical instructors to systematically track and documents progress toward the attainment of learning outcomes. Assessment results also serve as useful indicators for responsive and responsible educational planning.

#### **Elements of the Formative Assessment Process**

Several researchers have identified essential elements of formative assessment. These include (1) identifying the gap, (2) feedback, (3) learning progressions, and (4) student involvement, which are described as follows.

1. Identifying the gap is the proves of defining the

difference (the "gap") between what students know and what they need to know; it include collaboration between teacher and learner to identify learning goals and outcomes and criteria for achieving these.

2. Feedback (i.e., rich conversations between the teacher and student) gives the teacher information needed to identify the current status of a student's learning as well as the specific next steps that he or she can take to improve. Teacher feedback to students must be both constructive and timely to enable students to advance their learning. It must include a description of how their response differed from the reflected in the desired learning goal and how they can move forward. Student feedback and reflection can alert the teacher of the need to modify instructional approaches.

3. Learning progressions are used by the teacher to break a learning goal into smaller, more manageable subgoals. The teacher identifies a student's location on the learning continuum and works collaboratively with the student to set a series of smaller goals.

4. Involving students in decisions about their own learning and in self-assessment helps students to engage in reflection and build their metacognitive skills. There is a profound influence on student motivation and self-esteem when students are involved in self-assessments and understand how to improve.

**"Formative assessment represents evidence-based instructional decision making. If you want to become more instructionally effective, and if you want your students to achieve more, then formative assessment should be for you."** - Popham.

**Major barriers to wider use of formative assessment?**

While formative approaches to teaching and assessment often resonate with practitioners and policy makers, there are barriers to wider practice. They include : \* Perceived tensions between formative assessments and highly visible summative tests to hold school accountable for student achievement (teachers often teach to these summative tests and examinations) \* A lack of coherence between assessments and evaluations at the policy,

school and classroom levels. \*Fears that formative assessment is too resource-intensive and time consuming to be practical. Systems that address tensions and foster constructive cultures of evaluation are likely to make much greater progress in promoting reforms. Ideally, information gathered in assessment and evaluation processes is used to shape strategies for improvement at each level of the education system. In classrooms, teachers gather information on student understanding and adjust teaching to meet identified learning needs. In schools, school leaders use information to identify areas of strength and weakness and to develop strategies for improvement. At the policy level, officials use information gathered through national or regional tests, or through monitoring of school performance, to guide investments in training and support for schools, or to set broad priorities for education.

**Role of Teacher :** The aim of formative assessment is to improve students learning. One of the most obvious ways to do this in for teachers to improve how they are teaching. One component of the formative assessment process is for teachers to adjust their ongoing instructional activities.

**Role of Students :** Formative evaluation and feed backing learners of their progress in most helpful for the immediate decision making that students face. It makes teaching more effective as a result, it helps current learners to learn more effectively. It also provides ample opportunities to learners to have mastery in content.

**2. What are the strategies for using assessment in the process of learning.**

**Ans: The following starategies are used for assessment in the process of learning observation :** Observation is used for assessment when the children are associated with self learning activities. Sometimes it is used in Group activity also. The behaviour, the approach of the students in doing practical work will be observed to assess their capacities and interests. Observation is used in the regular process also to assess their attention towards the listening of the teacher.

**Questioning** : Questioning is an important technique used by the teacher to assess the children in the class room teaching process questioning will make the students attentive to the class. There are different types of questions i.e. projective questions predictive questioning thought provoking questions, leading questions extra that are used in different situations through questioning we can elicit the ideas and thoughts of the children.

**Reflection Learning** : The reflection of the students on the learning process may be assessed through discourse analysis and through some suitable activities. The discourse may be with teacher - student; Student - student that reflect the learning and comprehension of the students. By questioning on different teaching learning material the reflection of the students may be assessed.

### 3. Explain the important assessment devices.

**Ans : Assignments:** Assignment refers to tasks assigned to students by their teachers to be completed outside of class. Common home work assignments may include a quantity or period of reading to be performed, writing or typing to be completed, problems to be solved, a school project to be built or other skills to be practiced.

**Assignment as assessment device** : ❖ Concept understanding ❖ content organization ❖ content presentation ❖ content accuracy ❖ content quality ❖ clear conclusion ❖ over all clarity ❖ Grammar and spelling ❖ Foot notes and bibliography

**Project** : Project is a method of building a comprehensive unit around an activity which may be carried on in the school or out side. "A project is a whole hearted purposeful activity proceedings in a social environment  
- Kilpatrick

**Use of projects for assessment** : Assessment of a) clear planning and framework b) critical thinking and reasoning c) Execution d) creativity

**Practical work** : Practical work are use to access the skills or psycho-Motor objectives. Students are assigned some work that is to be accomplished in Laboratory.

**Practical work as assessment device** ❖ Assessment of familiarity of students with real tools, equipment, machines and techniques. ❖ Scientific skills ❖ assessment of performance in practical ❖ handling of instruments and other equipments ❖ assessment of students understanding of the scientific approach to enquiry ❖ questioning.

**Worksheets** : Work sheet commonly refers to a sheet of paper with questions for students and places to record answers. The term may also refer to a single array of data in spreadsheet software or an informal piece of paper that an accountant uses to record information.

In the class room work sheets usually refer to a loose sheet of paper with questions or exercises for students to complete and record answers. They are used, to some degree, in most subjects and have wide spread use in the match curriculum where there are two major types. The first type of math worksheet contains a collection of similar math problems or exercises. The second type of math work sheet is intended to introduce new topics and are often completed in the class room.

**Self and Peer assessment** : Self assessment involves students taking responsible for monitoring and making judgements about aspects of their own learning. It can be broken down into 2 stages.

Self assessment can be a way of assessing the product of learning but it is a learning process in it self. It is a way of improving student learning by passing on skills of evaluation and critical judgement to students.

Peer assessment can likewise be both formative and summative and can be a useful way of enabling students to think critically about their own work.

Self and Peer assessment may 1) help students become critical about their own work 2) Provide a structure for discussion about quality of work.

**Performance - based activities** : Performance assessments provide a basis for teachers to evaluate both the effectiveness of the process or procedure used and the product resulting from performance of a task.

**Type of performance task :**

Type of Task	Examples of complex learning outcomes that can be measured
Restricted Response performance Task	Ability to <ul style="list-style-type: none"> <li>❖ read aloud</li> <li>❖ type a letter</li> <li>❖ construct a graph</li> </ul>
Extended -Response Performance task	Ability to <ul style="list-style-type: none"> <li>❖ build a model</li> <li>❖ collect, analyze and evaluate data</li> <li>❖ write a creative short story.</li> </ul>

**Some of the examples of performance tasks** ❖ Use of a microscope ❖ Preparation of a greeting card ❖ Painting an object ❖ Drawing of plants and animals

**Reports as assessment devices** : Reporting students progress is one of the most crucial tasks, a teacher faces. Teachers and the students have the right to know the performance and also how the access of the data is based when reporting is done.

**Objectives:** ❖ Know the purpose of reporting the students result. ❖ Examine the existing practices of reporting in your schools for its merits and demerits. ❖ Prepare a reporting format which conveys both scholastic and co-scholastic performance of students.

**Purpose of Reports** : The purpose of reports are as follows  
 ❖ Instructional uses ❖ Guidance uses ❖ Administrative uses ❖ Motivation ❖ Feedback

**4. What is meant by summative assessment? How is the summative assessment in practice. Narrate the use of teacher made and standardized test?**

**Ans:** The term "Summative assessment refers to assigning a grade for learners achievement at the end of term, semester, course of instructional programme.

Making over all assessment or decision with the programme is a summative assessment.

There should be some instructional programme for the attainment of some objectives before the summative assessment takes place.

Summative test is given to the learner after he has passed successfully all the formative tests.

According to A.J.Nikto (1983) Summative evaluation describes judgments about the merits of an already completed programme, procedure or product". W.Wiersma and S.G. Gurus (1990) state, Summative evaluation is done at the conclusion of instruction and measures the extent to which students have attained the desired outcomes.

**Purposes of summative assessment** : Summative assessment serves the following purposes :

1. Pupils cannot easily combine all the daily feedback provided and obtain an overall picture of how they are doing. The summative assessment can provide such overall picture.

2. From the summative test, the general level of the learner is judged. On the basis of learners performance, the effectiveness of teaching and instruction is evaluated.

3. Summative assessment serves the purpose of assigning grades or certifying learner's mastery of the intended learning outcomes.

4. Summative evaluation serves the purpose of informing pupils, teachers and parents of the progress of an individual made over a period of time.

**Characteristics of summative assessment**

❖ It tends to the use of well - defined evaluation designs.  
 ❖ It focuses on analysis ❖ It provides descriptive analysis ❖ It tends to stress local effects ❖ It is unobtrusive and non reactive as far as possible.

**Summative assessment in practice :**

❖ It summarizes the final progress of the student as a result of a course of learning unit or lesson. ❖ It is less friendly than formative assessment, usually at the end of a unit or course of instruction. ❖ The results of such evaluation may be safely used for making comparison among students, placing them in order to

merit or taking decisions about their promotion and a warding degree. ❖ The overall feedback and a final picture of the student can be obtained. ❖ It judges overall level of the students which in turn also evaluates the effectiveness of teaching and instruction. ❖ On the whole it judges the achievement of objectives on the basis of learners performance. ❖ It provides reinforcement to teachers and instruction.

**Teacher made and standardized test :** Teacher made tests are frequently the basis of evaluating the students progress in school.

Teacher-made tests are valuable because they

❖ Are simple to use ❖ Motivate the students ❖ Provide for continuing checking ❖ Are more likely to reflect todays curriculum.

**Classification of teacher made tests :** The classification may based upon :

**1. Item format :** Essay versus objective **2. Presentation of stimulus material :** Verbal Vs. Non-verbal

**Steps :** 1. Planning 2. Preparation 3. Try out 4. Preparation of norms 5. Manual

**5. Explain the aligning formative, summative assessment ?**

**Ans :** The formative evaluation should be done as instructed in the evaluation process. This should be taken up along with teaching process. By putting questions or administering slip tests or unit tests.

After this evaluation the mistakes committed by students should be listed out and rectified by taking up remedial teaching.

More care should be taken in the case of below average and average children or their up liftment.

Care should also be taken to avoid mistakes in the process. This is useful not only to the students to comprehended things but also for the teachers to improve their teaching process. The summative evaluation is also be taken up as per the instructions in the evaluation process. The procedure that is adopted in the formative evaluation may be followed peer also. But in the case of public examinations and annual examinations the remedial teaching process will not be taken up because this is used for promoting the children to the next class.

## UNIT - 3

### TOOLS OF ASSESSMENT

**1. How do you assess the cognitive learning of the children ?**

**Ans : Understanding : [Comprehension] :** The second level of learning is comprehension. Information is not useful unless it is understood. At this level, those mental operations which help in understanding of facts, concepts, principles and generalizations are included. This level incorporates the previous level too i.e., knowledge. In other words, the meaningful processing of information takes place after the recognition or identification of any kind of information. One way we can check whether students have comprehended the information they possess is to ask them to state that information in their own words. Alternatively they can be asked to give examples of the concept or generalisation being learnt. Comprehension or understanding may involve any of the following processes.

**Translation :** Here the known concept or definition is transformed by the student into his own words or phrases. In other words, the student may give a meaning to a concept, definition or a principle in his or her own words.

**Interpretation :** Here the student tries to see interrelations among the various recognizable components of any information (data, facts, concepts, principles, generalization, theory etc.)

**Extrapolation :** This involve some kind of predictions or drawing conclusions keeping in mid the situations which are beyond those given to the student.

By creating suitable problems or questions on the Items mentioned above, the assessment of the children should be down.

**II. Application :** The mental operations at this level involve the use of concepts, principles or theories in real/concrete situations. Now a days there is an increasing emphasis on developing application abilities among the students. Generalisations can be used to solve new problems. Previous

knowledge can be used to estimate answers. Predict outcomes. In other words, students should be able to apply their knowledge of whatever they learn to real life situations. By creating new situations in which the students apply their knowledge, in attempting them. This is how assessment takes place in the application aspect.

**III. Thinking skills : Convergent :** The convergent assessment will be taken up on a particular thing taking all aspects that are associated with it.

**Divergent :** The divergent assessment will be taken up for a particular concept through different aspects in a divergent way.

**Critical :** The following instruments are available to generate evidence relevant to critical thinking teaching and learning.

**1. Course Evaluation form :** Provides evidence of whether, and to what extent, students perceive faculty as fostering critical thinking in instruction.

**2. Critical thinking subtest : Analytic Reasoning :** Provides evidence of whether and to what extent, students are able to reason analytically.

**3. Criteria for critical thinking assignments :** Can be used by faculty in designing class room assignments or by administrators in assessing the extent to which faculty are fostering critical thinking.

**Problem solving :** The problem solving assessment test will assess the following areas a) Language convection skills b) Qualitative reasoning skills.

Problem solving assessment is a special test designed by CBSE aims to infuse generic and higher order thinking skills among the school students.

**Decision making :** Decision making style inventory the source of this scale is inspired from ideas in C.W. Allinson and J.Hayes. The statements in this self assessment describe how individuals go about making important decisions. Read each statement in this decision making style inventory and indicate the extent to which you personally agree or disagree with the

statement. Answer each item as truthfully as possible so that you get an accurate estimate of your decision making style.

**2. What are the items to be selected for assessment.**

**Ans : 1. Multiple Choice Questions (MCQ) :** In the present day context multiple choice questions are widely used in the examinations at all level right from primary level to university level. MCQ are very adaptable and useful in meaning all the objectives of cognitive domain effectively. Lindquist opine that MCQs develop the ability to make correct inferences using logic effectively. MCQs claim one direct or incomplete for which 3 to 5 responses will be given. The respondent has to identify the correct responses to the given questions. The ability of the learner depicted in choosing the response right.

**Mechanism of Multiple Choice type Questions :** When we analyze the structure of MCQs it consists of three parts viz., stem, distracters and key response.

**a) Stem :** This is the most important part of the time which poses the problem to the examinees. It may be in the form of a statement, direct question or an incomplete statement.

**Principles in formulating the stems:** the Stem ought to contain necessary information and acts as stimuli. The points to be kept in mind while preparing the stem are :

1. The stem of the item should be specific and form a clear-cut idea to the examinee. Once the stem is real answer should flash in the mind of high achievers but low achievers out to go through all the options given.

**To Illustrate :**

1. The atom
  - a) Discovered by JJ Thomson
  - b) discovered by Rutherford
  - b) Discovered by Mendel
  - d) discovered by Dalton
2. The atom was discovered by
  - a) JJ Thomson
  - b) Rutherford
  - c) Mendel
  - d) Dalton

In the first example the stem is incomplete, so avoid the stems of that kind.

3. Avoid using the negatives in the stem. If it is unavoidable write the negative word in capital bold letters.

Example : Which of the following statements is NOT true.

4. Irrelevant information should not be included in the stem.
5. The language is used in the stem should be simple and unambiguous.

**b) Keyed response :** The correct response among the given options is called keyed response.

**Principle in formulating the keyed response :**

1. The key option of the item must be unarguably correct.
2. Wording in both the stem and key should be avoided.
3. The key and the distracters should possess homogeneity.

**c) Distracter :** The option given other than the correct responses are called distracters.

**Principles in formulation of distracters :** The distracters should have negative discriminative value. It means low achievers tend to be attracted by distracters more than the high achievers, distracters must be in correct responses.

1. Distracters should be plausible.
2. All the distracters should function independently.
3. All the distracters should be parallel in content and structure. The language used by the distracter should not be different from that of the key.
4. Grammatical consistency of the distracter must be in tune with the key language of the key.
5. The distracters should not provide the clues.
6. The distracters like 'none of the above', 'all the above' should rarely be used.

**Various types of multiple choice questions :**

1. Correct answer type
2. Relatively best answer type.
3. Not the correct answer type.

**Advantages of multiple choice questions.**

1. There is more reliability and adaptability to MCQ items.
2. They are more objective.
3. Scoring is very easy and accurate.

4. They are suitable to all sorts of students
5. MCQ aspects can be tested.
6. The duration of the test is less when compared to other types of questions.

**Limitations of multiple choice questions :**

1. There is more possibility to guess the key.
2. It takes more time to construct the test item.

**Binary Choice (True (Or) False)**

**'True or False' type questions :** In this type of question a statement related to a fact, definition or law etc., would be given. The student has to discriminate whether the given statement is true or false. These questions are based on the objective 'understanding' and the specification 'discrimination'.

Eg : What is the powerhouse of human or plant cell ?

Ans : Mitochondria.

**Merits of "true or false" questions :**

1. These type of questions are suitable to compare the facts.
2. It is easy to prepare.
3. They are more objective in nature.
4. They are easy to score.
5. This type of questions are useful in developing the decision making ability.

**Limitations :**

1. They are not suitable at higher level.
2. It is difficult to measure the performance of the examinee exactly since there is a chance for 50% guessing.

**Principles for the preparation of 'True or False' questions:**

1. The statement given should be either true or false. It should not be both.
  2. Avoid framing leading sentences.
  3. The ratio of true or false questions usually must be 1 : 1 ratio.
  4. Negative meanings are to be avoided.
- Apart from this classification questions, analogy questions,

sequence questions and other alternate type question also can be used as objective type questions.

### Matching question types

1. In the first type of matching type number elements in both the columns are equal.

2. In the second type of matching questions. The number of elements in the alternative columns should be more than the number of elements put in the introductory column.

### An example for matching type item :

List A	List B		
1. Na	10	[	]
2. Ar	20	[	]
3. Be	19	[	]
4. Ne	11	[	]
5. K	4	[	]
	29		
	31		

### Merits of matching type questions :

1. This type of questions are more suitable for students at both primary and secondary level.

2. It is easy to score.

3. The items have more objectivity.

4. This establishing the relationships among two separated elements.

### Limitations :

1. Item of this kind are less adaptable.

2. They are not suitable to me at higher levels.

### Precautions to be taken while preparing the matching type of questions.

1. No hints are to be given in any of the two columns.

2. It is desirable to maintain the ratio of elements in the introductory column and alternate column should be 5-7.

3. Care is to be taken to keep both the column in one page.

4. The elements in both the column ought to be homogenous.

5. Number of elements in each column should not exceed 15.

6. The length of the elements should be optimum.

**Short - Answer :** This is one of the restricted response types. This is almost same as the completion type. If the problem is in the form of a question it becomes short answer type and if it is in the form of incomplete statement it becomes completion type. This is also called as semi-objective type. E.g. who is the first President of the United States. Which the date which appears on the declaration of Independence signed. Give an example of an anti-biotic. How many cases of small pox occurred in the U.S.A. in 1950.

**Characteristics :** The short answer type should possess the following characteristics.

1) It should expect the student to supply a word, phrase, number or symbol.

2) The items should deal with the important content.

3) It should expect factually correct answers.

4) The language used in the question should be precise and accurate to the subject and it should cover the area of knowledge.

5) If the problem requires a numerical answer it should indicate the units in which it is to be expressed.

6) The answers should be written on the separate sheet of paper.

7) It should contain proper directions to students.

### Merits :

1. Very useful to measure the specific restriction.

2. There is more scope for expression of once ideas.

### Limitations :

1. Like any type question, short answer questions too are based on memory.

2. The Impact of clarity in vocabulary are very conspicuous on scoring.

**Essay type items :** These items are otherwise called as 'Free response Items' since the respondent has a freedom to answer the questions in the light of his/her experience, exposure, knowledge etc., Essay type questions can be categorized into extended response essay type questions and restricted response essay type questions. The respondent has very flexibility page limits, but in the latter type the respondent is limited to write the answer in one or two pages or may be restricted to certain number of words. Essay tye questions are widely used right from the school level to university level assessment. They are widely used at the university level when compared to the lower levels of system of education. Essay type test considerably helpful in evaluating the vocabulary, language skills, critical and reflective abilities of the respondent.

**Preparation to be taken while preparing the essay type item :** It is opined by the majority of teachers and educationalist that the evaluation of this type of item involves more subjectivity.

Formulation of Essay type items based on the objectives :

S.No.	Specifications	Items
1.	Describes	Describe the structure of voltmeter.
2.	Compares	Compare the properties of carved lens and concave lens
3.	Analyzing the relationships,	What effect would the primary colours have on a pictures.
4.	Evaluate	Evaluate the present economic policy of India.
5.	Explain	Explain the
6.	Critically exam	Critically examine the impact of
7.	Identification of appropriate conclusion	What are
8.	Explain caused and Effect relations	What is the impact of on the political stability of the government at central ?

**Advantages of Essay type Questions :** 1. Most effective in assessing complex learning outcomes. 2. Relatively easy to

conduct. 3. Give more opportunities for 4. Genuinity is eliminated. 5. Emphasize essential communication skills in complex academic disciplines. 6. Total freedom is given to the respondents. 7. Widespread knowledge of the response can be taken. 8. Promotes reading habits. 9. Recollection is given due importance their recognition.

**Limitations of the Essay type item :** 1. Clarity of the questions is proportion to the validity of the items. 2. Scores are un-reliable. 3. Evaluation of the answer script is time consuming. 4. It is not easy to make scoring. 5. Subjectivity plays a predominant role. 6. Remedy based 7. Blessing 8. Impact of hand writing, spelling, vocabulary, etc., on the scoring.

**Suggestions to improve the quality of essay type items :**

1. One question ought to be based on only one objectivity.
2. Very specific, clear and simple words are to be used : Ex : Write any 20 differences between ..... and.....
3. Frequency and intensity of the every questions may be enhanced at the higher levels.
4. Clear and specific instructions are to be given with regards to the length of the expected answer.
5. Avoid to formulate the questions based mainly on the objective 'knowledge/remembering' and encourage the questions based on 'understanding and application'.

**Suggestions to the valuator while evaluating the answer scripts :**

1. There should be explicit division of marks.
2. Optimum number of questions papers are to be given for valuation a day.

**3. What are the important assessment ways of learning.**

**Ans : Checklists :** A checklist consists of a listing of steps, activities or behaviour which the observer records when an incident occurs. It is similar in appearance and use to a rating scale and is classified by some as a type of rating scale.

A checklist enables the observer to note only whether or not a trait or characteristics is present. It does not permit the observer to rate the quality of a particular behaviour or its frequency of occurrence or the extent to which a particular characteristic is present. When such information is desired, the checklist is definitely inappropriate.

### Uses of Checklists

1. There are many ways in which the intelligent use of checklists can promote good teaching and learning process.

2. They can be meaningfully used in evaluating the work process and product of individuals or group of pupils.

3. Use this technique to diagnose strengths and weaknesses of pupils work while it is in progress and also in the quality of the completed work.

4. Their use as a basis for connection or prevention may help pupils to overcome their faults or weaknesses.

5. Their use may serve as a means of encouraging the development:

- i) Of the ability to discriminate and
- ii) Of inculcating good habits.

6. They may be used to rate such things as books, magazines and pamphlets when they are to be selected in the beginning of the new school year.

### Constructing Checklists

Various possible sources of material that can be utilised are ...

**1) The teacher himself :** The teacher by utilising his own resources can develop a checklist very rapidly and nicely.

**2) Others teachers and pupils :** This has the following advantages :

- i) Wider range of ideas and suggestions;
- ii) Increased objectivity;
- iii) Increased probability of getting valid responses from pupils;
- iv) Likelihood of more intelligent use of the results;

v) Less likelihood of errors in typography.

**3. Experts on group of experts :** This will definitely increase the validity and reliability of the checklists.

### Advantages of Checklists

1. They are adaptable to most subject-matter areas.

2. They are useful in evaluating those learning activities that involve a product, process and some aspects of personal social adjustment.

3. They are most useful for evaluating those processes that can be sub-divided into a series of clear, distinct, separate actions.

4. When properly prepared, they constrain the observer to direct his attention to clearly specified traits or characteristics.

5. They allow inter individual comparisons to be made on a common set of traits or characteristics.

6. They provide a simple method to record observations.

7. They objectively evaluate traits or characteristics.

8. They are objectively used for evaluating interest, attitudes and values of the learner.

9. They may be used for evaluating teaching interest of student teachers in the colleges of education.

**Interview :** The Interview is a face-to-face personal conference in which the required information is obtained directly from an individual.

The interviewer may employ controlled observation and rating techniques as a part of the interview.

The interview may be informal and it may deal with areas of the pupil's interest, needs and background about which the interviewer needs information.

Even in such informal meeting, it is essential for best results that rapport be established between the interviewer and the interviewee. A frightened or an antagonist interviewee is not a good subject for an interview. During interview, the interviewee should be at ease,

The pupils should not be questioned on many types of issues in the presence of a third party. Otherwise their responses might

be less frank and spontaneous than if they were questioned in privacy.

Sociometric test may be followed by interviewing the pupil.

There are at least three main aspects to the technique of interviewing.

**i) Parts of an interview :**

a) A beginning (establishing rapport and clarifying the purposes of the interview);

b) A middle (data gathering or exploration of alternative solutions to a problem);

c) An end (summarising and terminating the face-to-face relationship).

**ii) Securing Responses :**

a) **Structured or controlled interview :** (Here, there is an attempt to cover a definite ground. Schedules of questions are generally drawn up beforehand).

b) **Unstructured or uncontrolled interview :** (Here, conditions are least controlled. The interviewer raises various questions orally with the interviewee and takes advantages of the flexibility and informality of the situation).

**iii) Recording Results :** The teacher takes brief notes during the course of the interview and summarises the main points after the interviewee leaves. With the consent of the interviewee, a taperecorder may be used.

**Advantages :**

1. The interview is relatively quick and economical.
2. It can be beneficial to teaching - Learning process.

**Limitations :**

1. It is time - consuming
2. It cannot be used in group situations.

**Observation :** Observation of the pupil's behaviour is an important techniques of gathering information for the purpose of evaluation. Observation is an primitive a procedure as it is modern and new, with many new techniques being used as observation procedures. It is a tool be which the external behaviour of a person/

persons in controlled or uncontrolled situations can be observed and recorded. Though observation is the most widely used of all measurement procedures yet it is "measurement without instrument". Observation is an attempt to observe and appraise whatever happens, as it happens. Infact, teachers are ever observing their pupils behaviour. They also give their interpretations of the incidents they observe. But these interpretations are not always objective. Inspite of this, observation is a common technique used by teachers to collect data relating to human behaviour. In educational evaluation, observation is the most widely used of all measurement procedures. This is so, perhaps because a number of behaviour phenomena may not be assessed validly by another procedure.

Bradfield and Moredock, Measurement and Evaluation in Education.

The two commonly used methods of observation are :

- i) Directed observation. li) the anecdotal method.

The first procedure is directed towards a particular pupil or pupil - group under controlled conditions. It is a laboratory rather that a classroom procedure. The second procedure makes use of class room situations and evaluation is done on the basis of results obtained from observation of pupil behaviour at a time. This procedure is useful as information can be collected without disturbing normal activities of the individual or group.

In order to gain improved results through observation, following points should be kept in mind :

I) Determine ahead of time the purpose of observation. This means, the observer should know what exactly he is to observe.

ii)Observe only one pupil at a time. Prof. Downie suggests that when group behaviour is to be observed, moving pictures and recordings must be used in order to get a record of the many things going on at a time.

iii)A child under observation may be seen doing many things that are unimportant. Record only significant behaviour.

iv)Observation may be done at different times during the day. This will exhibit many points of significant behaviour.

v) Observed behaviour should be recorded and summarised immediately after the observation is over. It may be recorded during the period of observation if the person being observed is not conscious of this fact.

A few important limitations of the observation procedure may be listed here :

a) It is difficult to have standardized and objective observation. Whatever type of behaviour is occurring is largely a chance happening, and what the observer sees is entirely up to him.

b) Observation involves the observer's personal likes and dislikes. Some external happening may cause changes in the attitude of the observer himself which, in turn, may influence his recording.

**Inventories (or) questionnaires :** A questionnaire is a useful tool of evaluation. In the words of good, "In general the word questionnaire refers to a device for securing answers to questions by using a form which the respondent fills himself. According to Johnson questionnaire is systematic compilation of questions that are submitted to a sampling of population from which the information is desired.

While compiling a questionnaire for collecting some relevant information, the following points should be considered;

✦ It should have a definite purpose. ✦ The question should be worded in simple and distinct language. ✦ The questionnaire should be of reasonable length. This does not irritate. ✦ The questionnaire should be easy to tabulate and interpret. The information collected with the help of a questionnaire may be used for evaluating personality traits, interests, opinions likes and dislikes. This type of data is very useful in providing counselling.

**Rating Scales :** Rating scale is an important technique of evaluation. Rating is the assessment of a person by another person. Ruth strang calls it directed observation. A.S Barr and others define "Rating is a term applied to expression of opinion or judgement regarding some situation, object or character.

Example : How good was the performance

Excellent	very good	Good	Average	Poor
1	2	3	4	5

Five point rating scale.

**Types of rating scales :** Some of the widely using rating scales are

1) **Numerical Rating Scales**, in which numbers are assigned to each trait. If it is a seven point scale, the number 7 represents the maximum amount of that trait in the individual, and 4 represents the average. The rater merely enters the appropriate number after each name to indicate judgement of the person.

2) **Method of Paired Comparisons** in which the rater compares each person being rated with respect to the trait of every other. In individual, being rated in the general terms of 'equal', 'better', or worse.

3) **Graphic Rating Scales** are most commonly used.

Examples are :

He attends to important details

1	2	3
Always	Sometimes	Never

How will you rate his cooperation ?

1	2	3	4	5
Apathetic	Rarely	Sometimes	Usually	Highly
	Cooperative	Cooperative	Cooperative	Cooperative

The rater is to put a tick or a cross at the point on the scale that thinks proper for the individual.

4. **Score cards.** It is a type of scale in which whatever is being rated is analysed into its component parts. An expert assigns each part a maximum score. The rater assigns a value to each item as he passes judgement, and these values are totalled and a final score pronounced.

5. **Man to Man Scale.** In this case, an individual is asked to rate the person to be rated (the ratee) by comparing him to a person already rated and assigned a position on the scale. The ratee is assigned his position.

Tick marks are to be put against each trait as done against reading ability trait.

**Errors in Rating :** The following are the common errors in ...

**i) Generosity Error.** This means, sometimes the rater does not to run down the ratee, the latter being his favourite, by giving him ratings.

**ii) The Error of Halo Effect.** Sometimes the rating is done in terms general impressions about the ratees formed on the basis of some obvious performance.

**iii) The Error of Central Tendency.** Sometimes the raters have a dency to rate all or many of the ratees near the mid-point.

Besides the above points, the following points be taken as governing principles of rating scales :

- i) Clearly define the specific trait or mode of behaviour.
- ii) The trait or mode of behaviour should be readily observable.
- iii) The trait should be observed in a number of situations.
- iv) Allow some space in the rating scale card for the rater to give supplementary remarks.
- v) Have expert and well-informed raters.
- vi) Change the ends of the scale so that the 'good' is not always at the top or always at the bottom of the scale.
- vii) Indicate the need for honest rating, and wherever possible, state that a low rating, will not have any consequence for the person rated, either direct or indirect.
- viii) Assure the rater that his anonymity will be maintained.

#### 4. **What are the important performances of Assessment (Or) Write about project based assessment.**

**Ans:** An effective assessment program uses multiple strategies to demonstrate growth and performance and should be closely correlated to stated goals. Projects in which students create multimedia presentations, Web pages, artwork or songs

may be evaluated differently than traditional written, typed, or even word-processed papers. Assessment strategies can include performance tasks, teacher observations, personal communications, standardized testing, and student and teacher developed evaluation rubrics and others.

#### **Functions of Project Based Assessment**

- ❖ Assessment helps teachers develop more complex relationships with their students.
- ❖ Assessment helps students answer the questions "Am I getting it?" and "How am I doing?"
- ❖ Assessment can help make content connections clear.
- ❖ Assessment engages students directly in the evaluation of their own work.
- ❖ Assessment helps teachers plan their next steps.
- ❖ Assessment helps students plan their projects.

**Rubrics :** The most common assessment and evaluation tools used for collaborative learning are web based rubrics. Most generate printable versions of the rubric. Some have a rubric calculator, allowing the teacher to select appropriate performance indicators and have a grade generated. Developing meaningful rubrics can be a challenge. Involving students in the development of rubrics help them with their thinking, creates buy in on their part, and clarifies expectations all around.

A rubric simply lists a set of criteria which define and describe the important components of the work being planned or evaluated. A given criterion is then stated in several different levels of completion or competence, with a weighted score assigned to each level (0 being the lowest level).

A rubric should give clear guidelines to a reviewer on how to evaluate or "grade" a project presentation. Since the criteria for assessment are clearly defined in gradations from poor to excellent different reviewers can arrive at similar conclusions when comparing a given presentation to each of the graduated criteria on a rubric.

As a guide for planning, a rubric gives students clear targets

of proficiency to aim for. With a rubric in hand, they know what constitutes a "good" project presentation.

As a gauge for measuring progress while the project is under way, a rubric can be a handy tool to help keep students on target: they can compare their progress with where they want to be on the rubric's proficiency scale, and refer to it in order to remind themselves of their goal.

Finally, as an assessment tool, teachers can use it to assess projects, student groups, or individual students; students can use the same rubric for self-assessment as individuals, in groups, and for per assessment; and parents can answer for themselves their questions about their child's performance.

While some ready-made rubrics may help to accomplish these different purposes, they become even more powerful when students help develop the rubric they will be using. Students must actively focus on and discuss the characteristics of effective and interesting media projects, giving them depths of understanding and insight not likely achieved from using a ready-made rubric.

The use of project - based assessment techniques has continued to grow within education curriculums as resources and concepts beyond traditional testing applications have evolved. There can be extensive value to the student' overall learning process with the addition of project-based learning to supplement standard curriculum material. Often the project - based component of a lesson plans can help to make the concepts relatable for students.

Assignments that compile into a project-based assessment are also a technique option for educators looking to review the ability of students to be creative, diverse and authentic with their course work and the experience gained throughout the time frame of the class. Learning is guided by much more than study skills and the completion of worksheets and lesson plans. The ability of teachers to apply additional assessment techniques to determine the level of understanding of a topic can be highly beneficial to the overall development of a student.

### **Effectively Utilizing Project-Based Assessments**

Project - based assessments are an opportunity to utilize and

measure the higher order thinking skills of students. A project - based assessment will apply multi-faceted skills to be encompassed into a cumulative project. This can be a singular project at the end of a grading period or it can be done at designated intervals throughout the marking period. The intent is to design the project-based assessment to encompass the lesson plans, teacher worksheets and any additional teacher worksheets and any additional teacher resources which will ultimately provide a physical example of what has been learned and what can be applied by the student.

The criteria for the project-based assessment can be as specific or as generic as a teacher designates. A field trip that relates to the course work is potentially a project-based assignment but its effectiveness as an assessment opportunity would require a more direct correlation. Developing rubrics to define the class structure and curriculum design can be an effective means of applying project - based learning skills. Worksheets can help guide a student throughout the process during the semester.

**Advantages of Project-based Assessments :** Some benefits of project based assessments include the overall vantage point of subject correlation with industry applications. For example, students learning traditional uses of mathematic formulas or physics theories may benefit from studying the use of these topics in everyday life. The idea behind a value added project-based assessment is to strengthen the understanding of the lesson plan through experiencing the subject matter in a relevant way.

Expressive educational areas such as the arts, are especially an area where the creativity of a project can be largely left up to the endeavors of a student. However, overall the teacher has the responsibility to develop adequate worksheets and lesson plans to support the central ideas or techniques surrounding the projects.

There are many teacher resources available to help with the development of a project-based assessment plan. From rubrics to lesson plans and study skill suggestions, effective methods are available to assist educators with the implementation and execution of these techniques. The ability to guide students towards developing an overall understanding of course work is

integral to building on the continuous development of skills and classroom experiences.

**5. Define the term "Port folios". Write its types, purposes, guidelines for port folio entries and assessing port folios.**

**Ans :** Port folio assessment is in vogue for the last two decades. It is also used as the basis for grading to report to parents. It helps in keeping the records of the child, which may help even when it goes to the next class to know about the achievement of the child.

Port folios provide a means for collecting a variety of assessments over time in order to detect students pattern of success and failure to achieve instructional objectives - Wiggins

Systematic collection of student work into portfolios can serve a variety of instructional and assessment purposes. The value of port folios depends heavily on clarity of purpose, the guidelines for inclusion of materials, and the criteria to be used in evaluating port folios - Rober L.Linn & M.David Miller

**Types of Portfolios :** There are a variety of portfolio types, each designed to help assess either the process or the products of learning.

**Show case portfolios** Showcase portfolios highlight the best products over a particular time period or course. For example, a showcase portfolio in a composition class may include the best examples of different writing genres, such as an essay, a poem, a short story, a biographical piece, of a literary analysis. In a business class, the show case portfolio may include a resume, sample business letters, a marketing project and a collaborative assignment that demonstrates the individual's ability to work in a team. Students are often allowed to choose what they believe to be their best work, highlighting their achievements and skills. Showcase reflections typically focus on the strengths of selected pieces and discuss how each met or exceeded required standards.

**Process portfolios :** Process portfolios, by contrast, concentrate more on the journey of learning rather than the final destination or end products of the learning process. In the

composition class, for example, different stages of the process - an outline, first draft, peer and teacher responses, early revisions, and a final edited draft - may be required. A process reflection may discuss why a particular strategy was used, what was useful or ineffective for the individual in the writing process, and how the student went about making progress in the face of difficulty in meeting requirements. A process reflection typically focuses on many aspects of the learning process, including the following : what approaches work best, which are ineffective, information about oneself as a learner, and strategies or approaches to remember in future assignments.

**Evaluation portfolios** Evaluation portfolios may vary substantially in the content. Their basic purpose, however remains to exhibit a series of evaluations over a course and the learning or accomplishments of the student in regard to previously determined criteria or goals. Essentially, this type of portfolio documents tests, observations, records, or other assessment artifacts required for successful completion of the course. A math evaluation portfolio may include tests, quizzes, and written explanations of how one went about solving a problem or determining which formula to use, whereas a science evaluation portfolio might also include laboratory experiments, science project outcomes with photos or other artifacts, and research reports, as well as tests and quizzes. Unlike the showcase portfolio, evaluation portfolios do not simply include the best work, but rather a selection of predetermined evaluations that may also demonstrate students difficulties and unsuccessful struggles as well as their better work. Students who reflect on why some work was successful and other work was less so continue their learning as they develop their metacognitive skills.

**Online or e-portfolios.** Online or e-portfolios may be one of the above portfolio types or a combination of different types, a general requirement being that all information and artifacts are somehow accessible online. A number of colleges require students to maintain a virtual portfolio that may include digital, video, or Web-based products. The portfolio assessment process may be linked to a specific course or an entire program. As with

all portfolios, students are able to visually track and show their accomplishments to a wide audience.

**Purposes : Specify purpose :** Basically the purpose of a port folio should be known while designing the port folio.

**Instructional purpose :** According to Arter et al, the two global purposes of port folios identified by her are : the primary purpose of port folio in instruction.

**Assessment purposes :** The collected material in the portfolios over the year, semester etc. could be useful for both summative and formative evaluation.

#### **Guidelines for port folio entries :**

The minimum guidelines are :

- ❖ Use made of that port folio
- ❖ Who will have access to it ?
- ❖ What types of works are appropriate to include.
- ❖ What criteria will be used an evaluating the work ?

#### **Steps involved in creating port folio**

**1. Define your purpose :** It is to be used for formative purposes to document student progress. It is also used for summative evaluation also.

**2. Determine the content and skills to be assessed:** The teacher should specify the instructional objectives the content and skills of the students which are supposed to be mastered.

**3. Determine whom you would assess and at what grade levels :**

If the teacher wants to assess all students of his class room, he needs to collect many pieces of work from those students. If the information is for diagnosis, readiness or special education, he should collect information from the selected students.

**4. Determine what pieces you will collect :** The selection of iteams for the port folio should be based on the review of the purpose.

**Items for a port folio :** ❖ work sheets ❖ writing samples  
❖ projects models ❖ art work

5. Specify the number of times and how often work will be collected

If the purpose is

**a) Show case :** The materials may be collected at any convenient time after the best examples of students work in obtained.

**b) Document progress :** Collect samples of students behaviour over an entended period.

**c) Evaluation :** Sample may be collected from all participating students at the same time of the year and under the same conditions.

**6. Make provisions to involve students in the system :** One of the major strengths of using port folios is involving students in the port folio assessment system.

#### **7. Set up the procedures for scoring port folios.**

**Assessing portfolios :** Teachers and administrators have been making a move from traditional paper and pencil type tests to alternate forms of assessment. Teacher observation, project, essays, and other more creative ways of evaluating student achievement have gained a larger following within the classroom. Although its use has declined, one type of assessment tool that can be used very effectively is the student portfolio. Portfolios remain quite popular in education coursework and with administrators evaluating senior teachers. Why, then do so many classroom teachers forego the use of portfolios as assessment tools?

One reason might be that the portfolio is a very subjective form of assessment. For anyone uncomfortable without a grading key or answer sheet, subjective evaluation can be a scary task. Secondly teachers often are unsure themselves of the purpose of a portfolio and its uses in the classroom. Third, there is a question of how the port folio can be most effectively used to assess student learning.

## UNIT - 4

### PLANNING, CONSTRUCTION, ADMINISTRATION AND REPORTING OF ASSESSMENT

#### 1. What is Assessment ? Write its importance and process.

**Ans : Refer Unit 1 Question (1)**

**Why assessment :** Assessment is

1) Gives qualitative decision to its more than tests and measurement. 2) It clarifies how the achievement is 3) It helps in evaluation 4) It gives the teaching results qualitatively. 5) It is a part of teaching learning process and helps to improve it. 6) The results of this will be in the statistical form.

**How to assess :** 1) It clarifies which one to be assessed should be done and the process of assessment. 2) It is comprehensive i.e. adopting different methods for different things 3) Assessment is means to an end but not an end to means.

**Ways of Assessment :** 1) Placement assess 2) Formative assessment 3) Summative assessment 4) Diagnostic assessment

#### 2. Differentiate instructional, learning and objective assessments.

**Instructional Objectives :** An instructional objective is a statement that specifies in measurable terms what a learner will be able to do as a result of instruction.

Instructional objectives are specific and are behavioural in nature. These are mainly based on specific observable or measurable goals in pupils learning.

An Instructional objective establishes a minimal level of attainment for deciding whether or not the desired learning has been achieved.

An instructional objective may describe the mediating conditions under which the behaviour is to be achieved as well

as provides the procedures for determining whether or not a certain level of attainment has occurred.

Teaching learning situation at any level involves 3 major components name the teacher, the learner and the subject matter to be processed.

**Learning Objectives :** A learning objective is a statement that describes what a learner is expected to learn by the end of instruction.

A learning objective is an outcome statement that captures specifically what knowledge skills, attitudes learner should be able to exhibit following instruction.

**Examples :** ✦ State theorem ✦ Prove theorem ✦ Apply the theory to solve the problem ✦ Decide what stage the theory should be applied.

**Assessment objectives :** An assessment objective provides the evidence of how well a learner has learned what was intended to learn

**Stating of Assessment objectives - Examples :**

✦ Fill in the blanks ✦ Select the correct word ✦ Identify the parts in the diagram.

#### 3. Write about open book examination

**Ans : Open Book Examination** An open book examination is one in which examinees are allowed to consult their class notes, text books and other approved material while answering questions. This practice is not uncommon in law examinations but in other subjects it is mostly unheard of.

**Types of open book examinations :** One may think of two kinds of open book examinations say the restricted type and the unrestricted type. In the restricted type open book examinations, students are permitted to bring into the examination room one or more specific documents approved by the course instructor. In the unrestricted type of open book examination room one or more specific documents approved by the course instructor. In the unrestricted type of open book examinations, students are free to bring what ever they like.

4. What are the important aspects in the planning of assessment. A) Weightages b) Blue print

**Ans : Weightage to Objectives :** This would suggest that what objectives are to be tested such as knowledge, understanding, skill etc., and how much weightage has to be provided to each of these identified objectives in the particular test. This is done based on the results of content analysis. While doing the content analysis, one would be able to understand the different content categories and based on this, the weightage may be decided. This could be reflected in the format given below.

**Table showing weightage to Different Objectives**

Sl.No.	Objective	Marks	% of Marks
1.	Knowledge		
2.	Understanding		
3.	Application		
4.	Skill		
	Total		

**b) Weightage to Content :** This is done based on the analysis of the syllabus. Certain units/topics may be of very important and others may not be so. Further, while deciding the weightage to the different areas of the content one may keep in mind the instructional hours spent on transacting the particular unit/topic. This could be reflected in the format given below.

**Table showing Weightage to Different Areas of Content**

Sl.No.	Unit	Marks	% of Marks
1			
2.			
3.			
	Total		

**c) Weightage to Forms of Questions :** Basically we have got four forms of questions namely essay type, short answer type, very short answer type and objective type. Selection of any

item type is based on the fundamental principle of an item type which provides the most direct measure of the performance task described in the intended learning outcome. Based on the weightage one may provide for essay, short answer, very short answer and objective type of items and at this stage you may also identify number of questions in each category. This could be reflected in the format given below.

**Table Showing Weightage to Different Forms of Questions**

Sl.No	Question Form	Marks	No of questions	% of marks
1.	Objective			
2.	Short Answer			
3.	Very Short Answer			
4.	Essay			
	Total			

**d) Weightage to Item Difficulty** Generally in a class, we have students with different abilities. An achievement test should cater to the needs of all groups such as higher achievers, average, and the below average group. Thus it is desirable to include items of easy, average difficulty and of difficult nature, while preparing the test. Otherwise the difficulty of a test depends upon the nature and depth of the content. Here at the planning stage, one may decide to include 20% of difficult and easy items and 60% items of average difficulty. However, the actual difficulty of an item will be known only after performing item analysis, which is a part of the standardization procedures. Once the weightage is decided it could be reflected in the format given below.

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	Total		

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	Total		

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Table Showing Weightage to Difficulty level

Sl.No.	Difficulty level	Marks	% of Marks
1.	Easy		
2.	Average Difficulty		
3.	Difficult		
	Total		

**e) Scheme of Options :** A design should reflect the pattern of options(if there are) to be incorporated in the test. Academically speaking, there is no justification for providing options except to make the test simpler for the students. A true comparison of the students can be made only when all students attempt the same options. If it is desirable, one may provide the options to essay questions.

**f) How ever limit the number of Developing Test Specification (Blue print)** A blue print reveals the actual layout of a test paper. Just as we cannot think of an engineer without the blue print of a building to be built, similarly, we cannot think of a teacher without a blue-print of an achievement test. A blue print is called a three-dimensional chart showing weightage given to objectives, content and forms of questions. In fact the table that we have already prepared for you, for the design should fit in one table and that table is called the blue print of the test specifications. Thus a blue print/table of specification defined, the delimit of the achievement domain to be measured and a description of the sample of test items to be prepared. A model copy of the blank blue print is given below which is used for the construction of a norm referenced achievement test.

## MODEL BLUE PRINT

Subject : .....

Class : .....

Maximum Marks : .....

Unit/Paper : .....

Duration : .....

Sl. No.	Objectives → Forms of the Questions ↓ Units	Knowledge			Understanding			Application			Skill								
		E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O						
1.																			
2.																			
3.																			
4.																			
5.																			
	Sub-Total																		
	Total																		

Scheme of Options :

E : Essay, S.A : Short Answer,

Scheme of Selections :

VSA : Very Short Answer

O : Objective Type

Note : The entry in these boxes will be done according to the design developed. Thus the figures within brackets indicate the number of questions and the figures outside the brackets indicate the total marks.

**5. How do you construct items in preparation of test assessment (Or) What are the important items to be kept in mind in preparation of assessment ?**

**Preparing Relevant Items** The next step is to construct the items according to the design and blue print developed. The preparation of a set of relevant test items involves (i) matching the items to the learning outcome as directly as possible, (ii) obtaining a representative sample of all learning outcome, (iii) selecting proper level of item difficulty, (iv) eliminating irrelevant barriers to the answer, (v) preventing unintended clues to the answer, and (vi) focusing on improvement of learning and instruction. The following general guidelines may be better to follow while writing the items:

- ❖ Use the blue print as a guide to item writing
- ❖ Write more items than needed
- ❖ Write the test items, well in advance of the testing data
- ❖ Write each item so that it calls forth the performance described in the indented learning outcome
- ❖ Write each item in such a way that the task to be performed is clearly defined.
- ❖ Write each item at an appropriate reading level

Further while writing the items, it is better to write each one on a separate card. Writing items on different cards provides flexibility for arranging and rearranging the items. It also helps in reviewing the item easily.

**Reviewing Test Items**

Once the items are constructed, it is better to review the items once. No matter how carefully test items have been prepared, defects occur unconsciously, during construction. Thus it is desirable to review the items by another person or a fellow teacher as far as possible. While reviewing the items, the following questions/points may be kept in mind.

- ❖ Is the item format appropriate for the learning outcome being measured?

❖ Does the item really match with the learning outcome to be measured?

❖ Is the point of item clear?

❖ Is the item free from excessive verbiage?

❖ Is the item of appropriate difficulty?

❖ Does the item have an answer that would be agreed upon by experts?

❖ Is the item free from technical errors and irrelevant clues?

❖ Is the item free from racial, ethnic and gender bias?

Based on the results of the review, the defective items may be modified or dropped.

**Assembling the items**

There are various methods of assembling the items in an achievement test, and the method will vary with the use age derived from the results. For most of the classroom purposes the items can be arranged by a systematic consideration of (i) item used, (ii) the learning outcomes measured and (iii) the difficulty of the items.

The suggested way is placing the items in the order of:

1. True-False / Alternative Response Form
2. Matching items
3. Sentence Completion
4. Very Short Answer
5. Multiple Choice Items
6. Short Answer
7. Essay

The most effective method for organizing items in the typical classroom test is to (i) form sections by item type, (ii) group the items within each section by the learning outcomes measured,

and (iii) arrange both the sections and the items within the sections in an ascending order of difficulty.

The very purpose of following such an order is to make the examinee more comfortable and gain confidence in taking the test

### Preparing Directions

Test developers usually do not give much attention for preparing directions for the test. The directions for the for the test include the following.

- a) Time allowed for answering.
- b) Basis for answering.
- c) Procedure for recording the answers.
- D) What to do about guessing.

In addition to the general directions, sectionwise instruction /instructions may also be provided depending upon the nature of test items.

### Preparation of Scoring Key and Marking Scheme (Manual)

A scoring key and detailed marking scheme helps a lot in minimizing the variability in the marking and avoids subjectivity. Scoring key is to be prepared for the objective type of items and a marking scheme for short answer and essay type of items. The following are some of the highlights of a good marking scheme.

In case of essay, the expected outline of answer should be complete and also cover all possible points as desired. Clearly, indicate each expected point (value point) or its parts under the outlined major areas. Provides direction so as to whether all points will count towards a complete or correct answer. Indicate the breakup of marks for each expected point. These marks should be distributed over expected points and it should match to the total marks assigned for an item. A sample blank format for the scoring key and marking scheme is given below.

### Scoring Key and Marking Scheme

Q.No	Key/Value Points/ Outline	Marks allotted for each value point	Total Marks
1.			
2.			
3.			

In addition to this, a detailed instruction for scoring will also need to be worked out and issued to the examiners. This will ensure a high degree of reliability in scoring by an examiner and uniformity in scoring when many examiners value the answer scripts.

### Electronic marking procedure.

Electronic marking also known as e-marking and on screen marking, is the use of digital educational technology specifically designed for marking. The term refers to the electronic marking or grading of an exam. E-marking is an examiner led activity closely related to other e-assessment activities such as e-testing or e-learning which are student led. E-marking allows markers to mark a scanned script or online response on a computer screen rather than on paper.

There are no restricting to the types of tests that can use e-marking with e-marking applications designed to accommodate multiple choice, written, and even video submissions for performance examinations. E-marking software is used by individual educational institutions and can also be rolled out to the participating schools of awarding exam organizations.

**Process** : E-marking can be used to mark examinations that are completed on paper and then scanned and uploaded as digital images, as well as on line examinations. Multiple choice exams can be either marked by examiners online or be automarked where appropriate. When marking written script

exams, E-marking applications provide markers with the online tools and resources to mark as they go and can add up marks as they progress with out exceeding the prescribed total for each question.

All candidate details are hidden from the work being marked to ensure anonymity during the marking process. Once marking is complete results can be uploaded immediately, reducing both the time spent by examiners posting results and the wait time for students.

#### 6. Write about development of Rubrics.

**Ans: Rubric :** In education terminology, rubric means "a scoring guide used to evaluate the quality of students constructed responses. Rubrics usually contain evaluative criteria, quality definitions for those criteria, quality definitions for those criteria at particular levels of achievement and a scoring strategy.

##### Components of scoring Rubric :

Heran, Aschbacher and winters distinguish the following elements of a scoring rubric.

- 1) One or more traits or dimensions that serve as the basis for judging the student response.
- 2) Definitions and examples to clarify the meaning of each trait or dimension.
- 3) A scale of values on which to rate each dimension.

##### Steps to create a scoring rubric :

- 1) Ask for self and peer assessment.
- 2) Use teacher assessment, which mean using the same scoring rubric the students used to assess their work.
- 3) Have students look at models of good versus "Not -so-good" work. A teacher should provide sample assignments of variable quality for students to review.
- 4) Revise the work on the basis of that feed back.

#### 7. Write about Item Analysis

**Ans : Item analysis determines the effectiveness of the different items included in the test.**

Once the items have been written, reviewed, carefully edited and tried out they are subjected to a procedure usually known as "item analysis". Item analysis demonstrates how effectively a given test item functions within the total test. It is a technique of determining whether an item was too easy or too difficult and to what extent it was able to discriminate between high and low achievers.

Two indices of item analysis : Difficulty level and discriminatory power.

Item analysis has two indices, namely i) difficulty level, and ii) discriminatory power (Also called item validity).

##### Difficulty level

##### Calculating the difficulty level

The difficulty level of a test item is indicated by the percentage of pupils who respond to the item correctly. Hence, difficulty level of an item can be computed by applying the following formula.

$$\text{Difficulty level} = \frac{R}{N} = 100$$

Where, R = the number of pupils who get the item right  
N = the total number of pupils who have tried the item.

In certain situations like when the respondents do not respond, the formulae given below has to be applied.

$$\frac{R}{N - NR}$$

R = total number of pupils who get the item right

N = the number of pupils who have tried the item

NR = the number of pupils who have not responded

### Discriminatory Power

Discriminatory power- the extent to which a test item discriminates between pupils with high and low achievers. If an item is to be more effective, more pupils from the upper group will get an item correct than the number of pupils in the lower group.

The formula used for computing discriminating power is given below

$$\text{Discriminating power} = \frac{RU - RL}{\frac{1}{2}T}$$

### 8. Explain the different characteristics of Test.

**Test characteristics :** Characteristics of a good Test.

1) **Validity :** A test is considered as valid when it measures what it is supposed to measure.

2) **Reliability :** A test is considered reliable if it is taken again by the same students under the same circumstances and the score average is almost the constant, taking into consideration that the time between the test and the retest is of reasonable length.

3) **Scorability :** Scorability means that each item in the test has its own mark related to the distribution of marks given by

4) **Simplicity :** Simplicity means that the test should be written in a clear, correct and simple language.

5) **Objectivity :** Objectivity means that if the test is marked by different people, the score will be the same.

### 9. How do you represent the test data in graphical form.

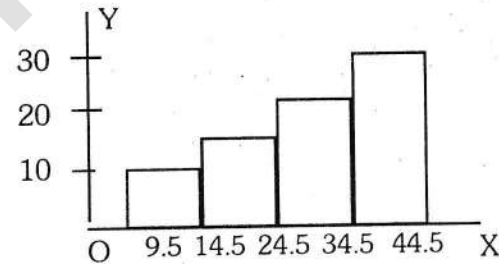
**Ans:** Graphic representation

The data displayed in table may also be graphed in various ways viz., the histogram, the frequency polygon etc.

**Advantages :** 1) It helps us in analysing numerical data

2) It helps us in comparing different frequency distributions to each other.

**The Histogram :** It is a graph in which the frequencies are represented by bars or columns. It appears as a series of bar graphs placed one next to the other in a vertical array.



**Properties :** i) Frequencies are along the vertical axis and the scores (CI) are along the horizontal axis.

ii) One assumes that the scores are evenly distributed with in the class interval, thus giving us rectangular bars.

3. The frequencies with in each interval histogram are represented by a rectangle, the size of the interval being to the base and the frequency of that interval the height.

4. The area of each rectangle in a histogram corresponds to the frequency with in a given interval, while the total area of the histogram corresponds to the total frequency of the distributions.

**Advantages :** ✦ It is simple and easily made. ✦ All the five advantages of the graphic representation as shown above are applicable here.

**Disadvantages :** ✦ It cannot be smoothed. ✦ It is difficult to superimpose more than histogram on the same graph.

**Frequency Polygon :** A polygon is a many angled close figure. The frequency polygon is a graphic representation of frequency distribution in which the mid point of the C.I are plotted against the frequencies.

**Properties :** 1) Frequencies are along that vertical axis and the score are along the horizontal axis 2) The total area of a frequency. Polygon corresponds to the total frequency.

**Advantages :** 1) It can be smoothed 2) It is simple and easily made.

**Disadvantages :** It is less precise than the histogram in that it does not represent accurately.

**10. What are the different types of measures of central tendency.**

**Ans : concept of measures of central tendency:**  
The most commonly used measures of central tendency are Mode, Median and MEAN.

**Mode :** Mode may be used in the following type of educational situations.

♣ When a quick and approximate of central tendency is required. ♣ When data is complete or the distribution is skewed, where most of the values are towards the extremes.

**Limitations :** ♣ Mode can obviously not be subjected to further statistical analysis. ♣ It remains as only a rough estimate.

**Median :** Educational situations and use of median.

♣ When is complete distribution is given. ♣ When the point dividing the distribution into two equal parts is needed.

**Limitations :** ♣ Median is not dependent on all the observations and ignores their numerical values. It cannot be used for inferential statistical analyses.

**Mean : Educational situations and use of mean :**

♣ Group performances are to be compared with accuracy and precision. ♣ We wish to know the centre of gravity of a sample.

**Limitations :** Mean of a distribution is highly misleading especially when some of the observations are too large or too small as compared to the others.

**11. Write about measures of variability.**

**Ans : Range :** Range is the simplest measure of dispersion. It denotes the difference between the greatest and the least values of the variable.

**Quartile deviation :** Quartiles are those values of the variate which divide the total frequency into four equal parts.  $Q_1$  is the lower or first quartile and  $Q_3$  is upper or third quartile.

$$Q = \frac{Q_3 - Q_1}{2}$$

**Standard deviation :** The most trust worthy measure is standard deviation.

**12. Explain the percentile ranks in assessment.**

**Ans : Percentile Rank :** Very popularly used method of describing test performance is percentile rank

Example : Science talent test.

The child will get to know its real raw score and also will be able to know how much percent of students are below him.

Percentile Rank indicates a student's relative position in a group in terms of the percentage of students scoring lower.

$$\text{Percentile Rank} = 100 - \frac{100R - 50}{N}$$

Example : Pawan Kalyan Ranks 1st in her class of 50 students. Her percentile Rank is

$$= 100 - \frac{100 \times 1 - 50}{50}$$

$$= 100 - \frac{50}{50} = 100 - 1 = 99$$

Pawan got 99th percentile rank in her class

**13. Explain about Norm-Referenced Assessment**

**Ans :** Norm-referenced measurement is the traditional

class-based assignment of numerals to the attribute being measured. It means that the measurement act relates to some norm, group or a typical performance. It is an attempt to interpret the test results in terms of the performance of a certain group. This group is a norms group because it serves as a referent of norm for making judgements. Test scores are neither interpreted in terms of an individual (self referenced) or in terms of a standard of performance or a pre-determined acceptable level of achievement called the criterion behaviours (criterion - referenced). The measurement is made in terms of a class or any other norm group as the function is to relate individual measurement to some norm group (Class). The purpose is to produce response variance i.e. to see the extent to which an individual varies or differs from the performance of the group to which he/she belongs or does not belong.

Almost all our classroom tests, public examinations and standardised tests are norm referenced as they are interpreted in terms of a particular class and judgements are formed with reference to the class which is considered as a type. Who is the most intelligent boy in the class? Who stood first? Who got the least marks? Is he better than 5% of the students in the class? These are the kinds of questions which involve norm-referenced judgements. Such judgements use the performance with similar information about the performance of others. That is why selection decisions always depend on norm - referenced judgments. A major requirement of norm-referenced judgements is that individuals being measured and individuals forming the group or norm, are alike. The conditions under which the referent (norm) was obtained and the conditions under which the original information is obtained, is also assumed to be similar. Another criterion is that the referent used in norm-referent (norm) was obtained and the conditions under which the original information

and the conditions under which the original information is obtained, is also assumed to be similar. Another criterion is that the referent used in norm -referenced judgements should have the minimum error so as to have reliable and accurate judgements. Unless the referent used is up-to-date or recent, the comparison of an individual's performance with the group (with an outdated referent) is of no use and can be misleading as it would lead to faulty interpretations. Thus norm - referenced measurement presupposes an up-to-date, reliable referent (norm group) of like individuals obtained from like conditions.

#### **14. Write about Criterion - Referenced assessment.**

**Ans :** A criterion - reference measurement has its origin in the writing of objectives by Mager who urged teachers to specify a criterion of acceptable performance while stating instructional learning outcome and intended level of proficiency of the learner or a desired standard of performance. Thus in contrast to a norm - referenced measure we can refer an individual performance to a predetermined criterion which is well defined. This type of measurement is termed as criterion-referenced measurement. It determines an individual status with reference to well defined criterion behavior. It is an attempt to interpret test results in terms of clearly defined learning outcomes which serve as referents(criteria). Success of criterion-reference test lies in the delineation of all defined levels of achievement which are usually specified in terms of behaviourally stated instructional objectives. According to Glaser (1963) underlying the concept of measurement of achievement lies the notion of the continuum of knowledge acquisition ranging from no-proficiency to perfect performance. It is on the continuum of knowledge that an individual's status regarding his/her achievement is to be determined. Unlike a norm - referenced measurement, the criterion level of the minimum acceptable performance for each objective is specified in advance, in criterion-referenced tests.

Use of criterion-referenced measurement at the elementary stage where learning of basic skills and fundamental concepts is essential, is a must to lay a proper foundation for learning at the secondary stage. It does away with the unfair comparison of an individual with other children. The major difficulty is the establishment of an achievement continuum in accordance with the complexity of the skills or the concepts involved. This notion also leads us to the concept of Minimum levels of learning (MLL) and Mastery Learning. MLL for primary classes has already been prepared by NCERT and Ministry of Human Resource Development, Government of India. The work in the field for secondary level is in progress. MLL can serve as criteria for evaluating students at any particular stage. In fact, both norm-referenced and criterion-referenced measurements have a place in the teaching-learning process.

#### 15. Explain Relative or Absolute

**Ans :** In the case of norm-referenced test, we interpret someone's test performance according to the performance of others: in the case of criterion-referenced test, we interpret someone's test performance in relationship to clear description of what is being measured, for example, a domain of skills, knowledge, or attitudes. In a very real sense, then, interpretations are made relatively for norm-referenced tests and absolutely for criterion-referenced tests.

#### Evaluation in Teaching-Learning process

A reasonable working definition for a norm-referenced measure is:

A norm-referenced test is used to ascertain an individual's status with respect to the performance of other individuals on that test.

Although a norm-referenced test focuses on the relative status of an examinee's test performances, a criterion-referenced test endeavours to tie down the nature of an examinee's test performance more tightly or, if you prefer, absolutely.

Thus a simple working definition for a criterion-referenced measure will be:

A criterion-referenced test refers an examinee's performances to that of a norm group, a criterion-referenced test refers an examinee's performance to a defined set of criterion behaviours that is an assessment domain. An assessment domain might be a specific type of reading skill such as the ability to infer the main idea of a reading passage or, perhaps, a particular mathematics skill such as the ability to solve work problems based on two or more arithmetic operations. An assessment domain might also be affective in nature, such as a student's attitude towards learning.

A criterion-referenced test can measure one or more assessment domains. Most criterion-referenced tests that educators encounter are based on assessment domains dealing with skill or knowledge. Here are some other examples of the sorts of assessment domains measured by criterion-referenced tests.

#### Typical Assessment Domains:

- ❖ The ability to spell a set of 250 hard-to-spell words
- ❖ Knowledge of specified events in Modern Indian History
- ❖ Skill in solving algebraic equations

#### 16. Write about Z-Scores :

The simplest type of standard scores is Z score and all others depend on this.

'Z' score can be expressed as the number of standard deviation units a raw score is above or below the mean

It can be calculated by using the formula

$$Z\text{-Score} = \frac{X - M}{SD}$$

Where SD- Standard deviation

X- any raw score

M- Arithmetic mean of raw scores

#### 17. Explain cumulative records

**Ans : Cumulative records :** Diaries of pupils and anecdotal and cumulative records maintained by teachers form another category of evaluation tools. The cumulative records assist the teacher to discover the growth of student in sufficient different

directions. Even a library record of a pupil can indicate his reading interest.

**18. What is an open house? How write about its organization**

**Ans Open house :** An open house (also known as open day and at home day) is an event held at an institution where its doors are open to the general public to allow people to have a look around it in order to gain information on it.

**Open house themes:**

Examples: 1. Back to school 2. Curriculum implementation 3. Who am I 4. Preparation of Teaching Learning Material

**Organisation of open house :**

1. wide publicity for the open house programme
2. Decorating the assembly hall attractively
3. The programme timetable should be decided prior to the open house programme.

**19. What is use of feed back for teachers self-improvement and curriculum revision**

**Ans : Teachers self development:**

1. The teacher can improve his teaching technique to select the teaching learning material in accordance to content.
2. Estimating the strength and weakness of the students and doing the need full.
3. We should acquire new knowledge from time to time.

**Curriculum Revision :**

1. Changing the cognitive domain in accordance to needs of the children
2. Knowing whether the affective domain will help the students in the learning process it not make necessary changes in it.
3. Bringing out psychomotor domain objectives that are useful for the bringing out changes in the CCE to achieve the objectives.

**UNIT - 5**  
**ISSUES, CONCERNS AND**  
**TRENDS IN ASSESSMENT**  
**AND EVALUATION**

**1. What are the existing practices in the assessment? Discuss in detail.**

**Ans : Class / Unit tests / Periodic Tests :** When a teacher wants to assess whether the students have learnt what they have been taught in a lesson or a unit and what difficulties they still face, this device is called periodical- testing when periodical tests are conducted after each topic / units, we can know about the clear picture of where the pupil is and of how he is progressing.

This knowledge of strength and weakness of pupil is helpful in planning effective teaching by teachers and in effective learning by the pupil.

The continuous evaluation is done by periodical testing.

**Performance on periodical tests :** The performance on periodical tests should be systematically recorded. Individuals performance on periodical testing should be given due credit alongwith annual test performance for final assessment.

**Half-yearly :** Half yearly examinations will be conducted after the end of second term that is in the month of December (or) January every year. The syllabus for these examinations the syllabus will be that is completed upto December. The marks scored in these examinations will be taken into consideration for Internal assessment.

**Annual tests :** What has the child learned ? And what ever he has learned, is it right or wrong ? This can also be known by conducting as annual test after the end of the session, This result can be used for ranking, awarding division, promotion and guidance. As the annual test is conducted at the end of the session,

the results of this test are not useful for effective planning of class room teaching or for effective learning by pupil.

#### **Board examinations and Entrance tests :**

For the students whose seek admission into different classes. The board will conduct examinations. In some institutions students will be admitted into different classes through entrance tests. In the case of residential schools students will be admitted class VI and VIII through entrance tests. The board examinations and entrance tests are used to set the students admitted into different classes at secondary level.

#### **Management of Assessment and examinations :**

**Examination management :** Administering an achievement test is as important as planning or developing an achievement test. Following are the important guidelines.

**Time Schedule :** The unit of time schedule for testing should be reasonably enough to permit its completion. It should include a realistic allowance for distributing and collecting papers and for giving instructions.

**Preparation by Testers :** The testers should prepare themselves in advance especially for the following aspects of the testing programme :

- a) The tester should follow the manual verbatim.
- b) The tester should make the procedures and the tasks clear to the testee before administering the test.
- c) The tester should go round the class and ensure that the students have followed the instructions carefully and are not copying.

**Preparation of Students for Testing :** Orientation talks on the usefulness of testing may be given to the students so that they are motivated to take tests and are convinced that tests are genuinely important.

**Appropriate Environment (Physical i.e. Hall Room etc.) for Testing.** The desirable environment for testing should satisfy the following conditions :

- 1) Examinees are physically comfortable.

- 2) Examinees are emotionally relaxed.
- 3) Examinees are free from interruptions and distractions.
- 4) Adequate space is provided to the examinees so that they are able to manipulate their test material conveniently.
- 5) Conditions of Righting and ventilation are adequate for testing.

**Recording of Test Results :** Results should be kept systematically so that these are made use of conveniently by the appropriate agency. Ofcourse results should be kept confidential.

**Equipment.** Provide necessary equipment. Ensure that examinees are seated in such a way as to prevent copying.

**Invigilators.** Provide necessary invigilators to supervise.

#### **Question Bank:**

##### **Item-bank (Question-bank)**

An Item/Question-bank is almost like a blood-bank. In a blood bank blood is collected, classified and stored from different healthy donors. The moment a blood-bank receives SOS message from a needy patient, the blood of required specification can be supplied by the blood-bank in no time.

On the same analogy, item/question - bank means a repository or collection of items/ questions from various responsible teachers and learners. It is an in-built feedback mechanism for improving items/questions.

##### **Characteristics of Item/Question Bank**

1. For each subject there should be a separate item/question bank.
2. The item/question-bank should contain a large number of items/questions.
3. It must be a dynamic bank in the sense that new items/questions should be added periodically and outdated items/questions or items/questions found to be defective should be weeded out periodically.

##### **Purpose of Item/Question Bank**

1. For providing quality items/questions for testing the learners.

2. For quick evaluation of the learning outcomes.

### **Need of Item/Question-Bank**

The needs of item/question - bank are as below :

1. Before the test, the teachers are generally not getting adequate time to prepare the items/ questions. Naturally, in the absence of adequate time, they prepare them haphazardly.
2. The construction of test items/questions on the spot is rather difficult. It is time-consuming.
3. In any school, all the teachers without exception, are not well-experienced, sincere, efficient and well-versed in the content matter. The construction of test items/questions requires these abilities.

### **Advantages of Item/Question bank**

1. If there is an item/question-bank, the material from it can be used by any teacher any by any school.
2. As soon as the blueprint is ready, within a very short period of time, selection of test items/questions from the bank in accordance with the design of the blueprint, can be easily done. And highly reliable and valid test paper gets ready.

### **How Item/Question should be**

1. While framing items/questions, it has to be ensured that they are unambiguous, simple in language and brief as far as possible.
2. Each of the item/question should evaluate some specific content area (topic) or learning outcome.
3. Their difficulty level should be appropriate to the group of learners being tested,
4. Each item/question should be accompanied with some specific information

**National achievement surveys :** The Government of India through the National Council of Educational Research and training (NCERT) has been conducting National achievement surveys (NAS) for classes III, V and VII/VIII to provide information about the learning achievement of students at regular intervals. Till date the NCERT has completed three cycles of such surveys.

**State achievement surveys :** The state level achievement survey has been taken place to estimate the standard, prevailing in the state. The Government had administered a test to have a comprehensive idea over the problem. The Government wanted to take necessary action on the basis of the survey reports. The ultimate aim of the government is to improve the standards in Educational system in the state.

### **2. What is marking and grading.**

**Ans: Marking or scoring** is the process of awarding a number (usually), or a symbol to represent the level of student learning achievement. The most common method is by adding up the number of correct answers on a test, and assigning a number that correlates. Higher numbers reflect better quality work. As a rule, marking applies to students level of performance in individual assessment tasks, not to overall achievement in a course.

**Grading** is the grouping of student academic work into bands of achievement. Grading usually occurs at a larger level, **for example** : significant assessment tasks, entire modules or courses and again is represented by a symbol. The most common grading symbols are A, B, C, D etc and HD, D, C,P (High Distinction Distinction, Credit, Pass) etc.

Grades are commonly determined by adding up the raw data of marks or scores and converting this to a band of achievement. Both marks and grades are symbolic representations that summarise the quality of student work and level of achievement. For any assessment task, students deserve to know what is expected of them and how the decisions about the quality of their work will be made i.e. how their work will be marked and graded. As a student progresses with their study, they will themselves become progressively better at making accurate judgements about the quality of their own work.

**Grading versus Marking :** Grading (usually referred to as 'awarding') is a separate process from that of marking and takes place after all (or nearly all) the marking is completed. For A level and GCSE, marks are awarded using a detailed marks scheme and the marks are assigned to scripts independently of

any consideration of grade -worthiness. The process of categorising marks into grades takes place later and is conducted by an awarding committee.

### 3. Write about non-detention policy ?

**Ans :** Non detention policy, the students upto class VIII are automatically promoted to the next class without being held back even if they do not get a passing grade. The policy was implemented as part of the continuous and comprehensive evaluation (CCE) under the RTE Act in 2010 to ensure all-round development of students. The concept of CCE imported from the west, which emphasises, on evaluating a child through the year and not just based on performance in one or two term exams.

### 4. Explain the terms objectivity and subjectivity.

**Ans : Objectivity :** Objectivity in a test makes for the elimination off the opinion, bias or judgment of the person who scores it.

In general objective test items are so worded that only one answer satisfies the requirements of the statement. The distinct advantage of selecting highly objective items for use in educational tests is that there can be little or no disagreement on what is the correct answer.

Objectivity as well as validity and reliability, of a test maybe expressed by the use of the correlation coefficient.

**Subjectivity :** Subjective attitude of examiners influence the marks of individuals and leads to a great variability in marking. Vernon points out "The same script might receive a different mark if read after Instead of before dinner.

Dr.R.K.Singh says,"our examinations are subjectively weighed and subjectively scored and are not, therefore, dependable indices of pupils achievements. The Harvard University Commission in England says "Where the panel of readers is large, where thousands of books are being rated, where physical conditions of weather and health are not always under control, and where practically all judgements are subjective, It would be indeed strange if discrepancies in ratings are not numerous, if mistakes are not frequent and costly.

### 5. What is the impact of entrance test and public examination on teaching and learning process.

**Ans :** Public examination system can play a significant role in improving the quality of education when its purposes are not only accreditation for the purpose of accountability selection and promotion but also for enhancement of teaching and learning. It has been argued that this can be achieved through the combination of both formative and summative assessment. It is hoped that examination in this way would not become a burden and fearsome activity but a means to promote learning which is one of the major objectives of schooling and would lead to improved quality of education. If the pattern of conducting examination were changed, surely it would have greater impact of quality of teaching and learning.

In India, Entrance examinations are chiefly confined to medicine, engineering and management. The stiff competition has led to a situation where many students neglect their school studies and focus solely on 'entrance coaching' which is time consuming and expensive. This has led many states to scrap the entrance and base admissions on the school leaving marks which, unfortunately are none too reliable. Frequent changes in the pattern of examination are essential since sticking to a 'standard text' or 'standard pattern' alone will favour the coaching industry and rote learners.

### 6. Write the trends in assessment and evaluation.

**Ans: On line examination system :** Online examination system is a multiple choice questions (MCQ) based examination system that provides an easy to use environment for both test conductors and students appearing for examination. The main objective of OES is to provide all the features that an examination system must have with the interfaces that does not score its users.

**Taxonomy of OES :** Users of OES are classified into three categories. Administrators, Test conductors and students. Administrators are responsible for management of system users, subjects, tests, questions, results, system back up and recovery

etc. Test conductors are responsible for preparing subjects, tests and questions, students are the candidates appearing for the examination.

**Computer based exams (Assessment)**, also known as Electronic assessment. Now a days, computer based exam is the most popular process for education sector. The traditional examination procedure was costly, maximum effort very lengthy process. That way the exam process has been replaced by computer exam in the present times.

**Types** : Computer based exams is used primarily to measure cognitive abilities.

**Formative assessment** : Formative assessment is used to provide feed back during the learning process. In online assessment situations, objective questions are posed and feed back is provided to the student either during or immediately after the assessment.

**Summative assessment** : Summative assessments provide a quantitative grade and are often given at the end of a unit or lesson to determine that the learning objectives have been met.

**Surveys** : Online surveys may be used by educators to collect data and feed back on student attitudes, perceptions or other types of information that might help improve the instruction.

Computers will play an increasingly important role in the educational assessment programmes.

Computers will be used in the development of tests by helping in the process of a) Norming b) deriving types of scores c) computerizing item analysis d) estimating reliability and validity and e) In a large number of other tasks.

They may be used in the process of scoring and the reporting of results. ❖ They may allow the schools to easily analyse the data in any way the teachers see fit. ❖ Use of computer administration will also facilitate test selection and the use of sequential testing.



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