

Q1 Write short notes on the following :-

(i) Formative, summative and diagnostic.

Ans. According to the educational process or program evaluation method, Scriven (1965), divided evaluation types into :-

1. Formative Evaluation - The purpose of formative evaluation is to find out whether after a learning experience, students are able to do what they were previously unable to do. Its ultimate goal is usually to help students perform well at the end of programme. This evaluation accumulates information to enhance methods and optimize education while the education is in progress. It takes place during the programme or learning activity. It is conducted while the event to be evaluated is occurring and focuses on outcomes to improve the activity. It refers to process evaluation while summative evaluation refers to product evaluation.

2. Summative Evaluation - It is conducted at the end course. Its purpose is to form a judgement about the performance of a student, effectiveness of an instructor effectiveness of the course and it is regularly scheduled at the end of academic terms. It is an attempt to determine the extent the broad objectives of a programme have been achieved. It is sometimes referred to as assessment of learning and formative assessment as assessment of learning.
3. Diagnostic Evaluation - It is an essential device in a teacher's 'tool kit'. It can be used to diagnose strengths and areas of need in all students. It involves the gathering and careful evaluation of detailed data using students knowledge and skills. It involves the identification of students whose learning or classroom behaviour is being adversely affected by factors not directly analysis of instructional practices. It provides detailed analysis of performance which can be used for professional development planning and job placement. It also provides a deeper level of insight than a surface level observation. It yields insight into how an individual thinks and uses language while engaged in interpreting.

## (ii) Uses of ICT in Teaching Learning Process

Ans Information and communication Technology (ICT) - It is defined as a 'diverse set of technological tools and resources used to communicate, and to create, disseminate, store and manage information. These technologies include computers, the internet, broadcasting technologies and telephony.

Uses of ICT in Education - It is shown worldwide that ICT can improve students learning. We can describe it in following :-

1. Modern Development - It provides exciting possibilities to enhance the quality of education. Interactive education software like libraries, and cheaper technologies, enhance the quality of education by making it more accessible.
2. Education may be enriched - by integrating such technologies into traditional educational activities. However, it must be recognized that ICT never displaces the relationship

between the teacher and the student.

3. ICT has the capacity to enhance the learning process - and facilitate communication within education, institution and between educators and learners but it must be used in educational institution under the supervision of qualified well-trained professionals.
4. Anytime, anywhere - ICT has one feature i.e. ability to transcend time and space. ICTs make possible asynchronous learning, or learning characterized by a time gap between the delivery of instruction and its reception by learners.
5. ICTs help prepare individuals for workplace - It helps prepare the current generation of students for a workplace where ICTs, particularly computers, the internet and related technologies, are becoming more and more ubiquitous. Technological literacy or the ability to use ICTs effectively and efficiently, is thus seen as representing a competitive edge in an increasingly globalized job market.

### (iii) Brain-storming

Brain-storming is the name given to a situation when a group of people meet to generate new ideas around a specific area of interest. Using rules which remove inhibitions, people are able to think more freely and move into new area of thought and so create numerous new ideas and solutions. The participants shout out ideas as they occur to them and then build on the ideas raised by others. All the ideas are noted down and are not criticized. Only when the brainstorming session is over are the ideas evaluated. Hence, brainstorming can be explained as follow :-

- It is a process designed to obtain maximum number of ideas relating to a specific area of interest.
- Brainstorming is where a group of people put social inhibitions and rules aside with the aim of generating new ideas and solution.
- It is a time dedicated to generate a large number of ideas regardless of their initial worth.
- It is a part of problem-solving which involves the creation of new ideas by suspending judgement.

Purpose of brainstorming :- By expressing ideas and listening to what others say, students adjust their previous knowledge or understanding, accommodate new formation and increase their level of awareness. The main purpose of brainstorming are :-

- To focus student's attention on a particular topic.
- To generate a quantity of ideas.
- To teach acceptance and respect for individual difference.
- To encourage learners to take risks in sharing their ideas and opinions.
- To demonstrate to students that their knowledge and their language abilities are valued and accepted.
- To introduce the practice of idea collection prior to beginning tasks such as writing or solving problems.
- To provide an opportunity for students to share idea and expand the existing knowledge by building to each other.

Initially some students may be reluctant to speak out in a group setting, but brainstorming is an open sharing activity which encourages all students to participate. Teachers should emphasize active listening during this session.

## (iv) Constructivism

Constructivism is basically a theory-based on observation and scientific study about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it without previous ideas and experience, may be changing what we believe, or may be discarding the new information as irrelevant. In any case, we are active creators of our own knowledge.

In the class-room, the constructivist view of learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. The

teacher makes sure he understands the students pre-existing conceptions and guides the activity to address them and then build on them.

Constructivist teachers encourage students to constantly assess how the activity is helping them gain understanding. By questioning themselves and their strategies, students in the constructivist classroom ideally become 'expert learners'. This gives them ever-broadening tools to keep learning. With a well-planned classroom environment, the students learn "How to Learn".

- children learn more and enjoy learning more when they are actively involved, rather than passive listeners.
- Education works best when it concentrates on thinking and understanding, rather than on rote memorization. It concentrates on learning how to think and understand.
- It is transferable. In this classrooms, students create organizing principles that they can take with them to other learning settings.



## UNIT-1

Q2 Define teaching and learning. How is learning related to teaching? Importance and its nature.

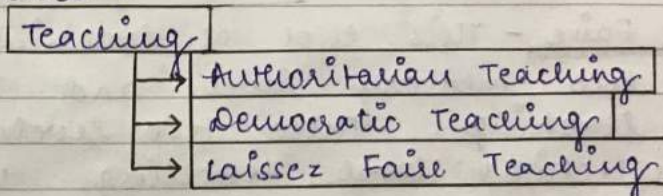
Ans Teaching - The main function of teaching is to make learning effective. The learning process would get completed as a result of teaching activity. Hence teaching and learning are very closely related.

"Teaching is an activity with four phases: a curriculum planning phase an instructing phase, a measuring phase, an evaluative phase." Hits

"Teaching is a system of actions intended to produce learning".

"Teaching" in clear way is - Teaching refers to activities that are designed and performed to produce change in student's behaviour."  
→ Clark.

Teaching has been defined according to three view points which are as follow :-



- a) Authoritarian - According to this viewpoint, the teaching is an activity of memory level only. This teaching does not develop thoughts and viewpoints or attitudes in the pupils. The teacher too can impart incorrect knowledge. Such teaching is known as thoughtless teaching. In this whatever teacher teaches according to his own, the pupil will have to accept. Hence, we can say that authoritarian teaching is 'teacher centred'. There is no place for the criticism of the teacher.
- b) Democratic - Memory level teaching is pre-requisite i.e. firstly some content is memorized and then its understood. Such type of teaching is known as 'thoughtful teaching'. It is an interactive process, involving classroom talk which

takes place between pupil and teacher occurs during certain definable activities.

- c) Laissez Faire - This type of teaching is more difficult than the memory level and understanding level teaching. These two levels are 'must' for reflective level teaching. Without achieving memory & understanding levels reflective levels are not possible. In other words, it is highly thoughtful activity. In this, both pupils and teachers are participants. This level produces insight.

Learning - Teaching is mainly focused on learning when there is teaching, learning occurs. Therefore the concept of teaching can never be said complete without learning.

"The process of acquiring new knowledge and new responses is the process of learning".

"Learning is any change in behaviour resulting

from behaviour".

- The nature of learning can be highlighted in the following:-
- i) modification of behaviour is learning.
  - ii) learning is positive and negative.
  - iii) learning is a continuous process.
  - iv) It is a process of growth & problem solving.
  - v) It is social and intelligent.
  - vi) It is an active process.

"Teaching should be the focal point in educational psychology but learning has been accepted as the focal point".

Relation between Teaching and Learning - No teaching is possible without learning. The teaching may aim at learning, but the entire teaching process may not essentially result into learning e.g. an advocate may aim at winning the case in the court, but it is not sure, whether he wins or not. Similarly a teacher tends to induce learning in the pupils but learning does not get induced in all the pupils. It is not essential

that every type of teaching must produce learning.

### Importance and nature

The nature of teaching are as follow:-

- Teaching is a social activity.
- It is a process of development
- It is a system of actions which produces learning
- It is an art as well as science.
- It is face to face encounter.
- It is observable, measurable and modifiable.
- It is continuum from training conditioning, instruction and indoctrination.
- It is from memory level to reflective level.
- It shapes behaviours.
- It is a prescription
- It is a bi-polar process
- It is a linguistic process
- It facilitates learning.
- It is guidance
- It is the development of learning situation

relationship essential and important. Without understanding this relationship, the teaching activities may become aimless and without any result. Learning theories are not complete in themselves. Learning theories are nothing but learning situations. These situations are very useful in teaching activity. The behaviour of the pupil can be divided into three categories - cognitive, domain, affective and psychomotor domain. These changes occurring in the pupil's behaviour may be related to any one category of these said categories.

In order to understand the teaching-learning relationship, it is also very essential to understand the meaning of learning and teaching. It is very much clear that the change in behaviour and habit formation are known as learning. For these changes in behaviour and habit-formation, it is very essential to do various teaching activities.

The relationship among all the above facts can be shown as follows :-

	Bloom Objectives	Gagne's learning conditions	Biggest levels.
1.	Knowledge	Signal learning	Memory level
2.	Comprehension	chain learning	↓
3.	Application	Multiple discrimination learning	↓
4.	Analysis	Concept learning	Understanding level
5.	Synthesis	Principle learning	↓
6.	Evaluation	Problem solving	Reflective level

In order to explain the teaching learning relationship, help from system approach can also be sought.

Bernard has considered four processes of education - teacher, pupil, learning process and situation. An interaction occurs between learning situation, educational programme inside and outside the school. The teacher creates teaching conditions through teaching activities. The teacher behaviour and their learning situations or conditions influence the development of the pupils. Teaching and learning go side by side.

## UNIT-2

Q3 What is meant by "Model of Teaching"? Explain the characteristics of Teaching Model.

Ans The word 'Model' can be used in two ways: (a) In the form of some 'ideal'. (b) In the shape form of an object. To bring any idea in the forefront a model is used. A person or student tries to follow these ideals in his life. For example - the teacher present himself as a 'role model' in front of the students. The students learn good things or good qualities from him. For example - if the engineers want to prepare the outline of any dam, then they make a small model of that dam, see if it's working or not and then make the actual dam in bigger form.

In the field of teaching also, 'teaching paradigms' are teaching models. Teaching models are developed on the principles of learning. In ordinary words, "Teaching Model is a way of thinking about the teaching."



Models of teaching and learning are critical pieces to instructional planning and delivery because they help educators:

- i) Allow them to reach larger number of students more effectively.
- ii) Create either more uniform, or varied instructional events, guided by targeted subjects, content or processes.
- iii) Gain needed insights into why some methods work with some learners, while others do not.
- iv) Radically modify or redesign existing methods of teaching and instructional delivery.

"Teaching models are just instructional designs. They describe the process of specifying and producing particular environmental situations which cause the students to interact in such a way that specific change occurs in his behaviour."

"A Model of Teaching is a set of inter-

related components arranged in a sequence which provides guidance to realize specific goals".

Three meanings of teaching Models are:-

- a) Teaching models are just instructional designs. They describe the process of specifying and producing particular environmental situations which make the students to interact.
- b) It is a "pattern or plan which can be used to shape a curriculum or course to select instructional material and to guide a teacher's actions.
- c) A model of teaching consist of guidelines for designing educational activities and environments. It specifies ways of teaching and learning.

Models represents the broadest level of instructional practices and present a teaching strategies, methods, skills and student activities for a particular instructional emphasis. Instructional models are related to theories about how we learn.

### Characteristics of Teaching Models.

- Scientific Procedure
- Criterion of Performance
- Specification of Operations
- Assumptions
- Answer to some Fundamental questions
- Based on Individual Difference
- Presenting Appropriate Experiences
- Influenced by Philosophy
- Development of Human Ability
- Specification of Learning Outcomes
- Specification of Environment
- Maxims of Teaching Drive.

1. Scientific Procedure - A good model of teaching is based on certain assumptions as well as grounded on specific theories of learning. It is not a haphazard combination of facts. It is a systematic procedure.
2. Criterion of Performance - A good model specifies the criteria of acceptable performance which is expected

from the students.

3. Specification of operations - This teaching specify mechanism that provide for student reaction and interaction with the learning environment.
4. Assumptions - Each model has certain basic assumption which are kept in mind while a model of teaching like :-
  - a) creation of appropriate learning environment
  - b) occurrence of nature & quality of interaction between the teacher and students.
  - c) using appropriate teaching strategies
5. Answer to some Fundamental questions - It answers some fundamental questions like How does a teacher behave? why he/she does like this? what would be the effects of behaviour of learner?
6. Based on individual Differences - It follows the age old maxims of teaching, which have been accumulated by our long experience in teaching.
7. Presenting appropriate Experiences - It provides appropriate experience to students and teachers. These are not based on rule of thumb.

8. Influenced by philosophy - Good models of teaching are influenced by some kind of philosophy of real life.
9. Development of human Ability - The humanist is nature as well as in orientation. They are developed and used for the development of human ability and capability.
10. Specification of learning Outcome - The learning outcomes in detail in observable students performance. After completing an instructional sequence whether the students performed in detail.
11. Specification of Environment - It is definite term in learning environment conditions under which a student will learn and modify their behaviours.
12. Maxims of Teaching Driven - All models of teaching follow our age old maxims of teaching which have been accumulated by our experience in teaching.

## UNIT-3

Q4 What do you mean by Information Technology? Explain the role of ICT teaching?

Ans Information and Communication Technology is defined as a diverse set of technological tools and resources used to communicate, and to create, disseminate, store and manage information. These technologies include computers, the internet, broadcasting technologies and telephone.

ICT is often used as an extended synonym for information technology. It is more broad in scope. It stresses the role of unified communications and the integration of telecommunication and wireless signals, computers as well as necessary enterprise software, middle ware, storage and audio-visual systems, which enables users to access, store, transmit and manipulate information.

According to Whilman. 'ICT today usually means computer-based management of data or ideas'.

ICT refers to technologies that provides access to information through telecommunication. It is similar to information technology (IT), but focuses primarily on communication technologies. This includes the internet, wireless network, cell phones and other communication mediums.

Role of ICT in teaching - New classrooms are changing its look from traditional one i.e. from one way to two way communication. Now teachers and students participate in classroom discussion and education now is student centric education. So the teacher should prepare to cope up with different technology for using them in the classroom for making teaching learning interesting. ICT has enabled better and swifter communication, presentation of ideas and material in effective way. Students are encouraged to look for information from multiple sources and they are now more informed than earlier. So this is the

Reason ICT is very much necessary for teaching.

- It helps teachers in both pre-service and in-service teacher training.
- It helps teachers to interact with students.
- It helps in preparing their lessons, and provide them feedback.
- It helps in improving teaching skills and also helps in innovative technology.
- It helps in improving professional development and educational management and enhances active learning of teacher trainees.
- Different tools of ICT such as word processing, database, spreadsheet, etc are also used in ICT.



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- ICT is a popular tool for organisation and management in the institution.
- ICT plays an important role in students overall evaluation.
- It is storehouse of educational institutions because all educational information can safely be stored through ICT.
- It helps teacher to communicate properly with students. So, ICT bridge the gap between teacher and students. It helps teacher to identify creative child in educational institute. Teachers learn most of their own networks with the help of ICT.
- Teacher Training Institution can also develop their curriculum by using the ICT.

Conclusion - Teaching occupies an honourable position in society. ICT helps the teachers to update new knowledge skills to use the new digital tools and resources. ICT is one of the major factors of producing rapid changes in society. It can change the nature of education and the role of student and teacher in teaching-learning process.

- Teachers in India have now started using technology in the classroom. Laptops, projectors, EdubOM, smart classes, Memory stick are becoming the common media for teacher education institutions.
- So we should use information and communication technology in teaching. Teacher Education in the 21<sup>st</sup> century is available. Because new teachers only can create bright future of the students.

## UNIT- 4

Q5 Write a brief note on the comparison between objective type test and essay type test.

Ans. Essay Type Test :-  
The essay type test means such an examination system in which the pupils give responses to many questions of the curriculum in some fixed duration in the form of an essay. The answers to questions in this type of tests are so much lengthy than the test can measure very easily the power of thinking, comparison, expression, reasoning and criticism alongwith the ability of organisation of thoughts, language and style, etc. Remember that at the recall and recognition level, the achievement of the pupil can be measured by objective type tests, but at the levels of interpretation, application and evaluation, the use of essay type test is very essential.

### Objective Type Tests :-

The objective type test mean those good techniques or tests of measurement which are constructed to eliminate the defect of essay type tests. In these test, variation of scores is controlled by avoiding subjectivity. In other words, in objective type tests, the achievement of subject knowledge of pupils, their aptitude, attitudes, interests and intelligence etc are measured by receiving answers of 150 to 200 short and pointed questions based on the entire curriculum. Also, there can not be any type of difference regarding answers among the examiners. This will not affect the scorability of the pupils. The scores obtained by them will neither increase nor decrease. The objective type test was first of all constructed by Horace Mann in 1854 in black and white. After this, many objective test for measuring educational achievements were prepared. Even at present, various types of objective tests are being used to measure every aspect of the pupils.

Point	Objective Type Test	Essay Type Test
Objective	Measuring Achievement, prognosis, diagnosis, research, counselling and guidance	Measuring achievement, prognosis, classification and promotion.
Construction	Difficult, time consuming, costly and needs knowledge and training	Easy, economical and needs no training.
Scoring	Simple and easy. The answer key is used. Mastery for the evaluator over subject is not essential	Difficult. The evaluation should have mastery over subject-matter.
Reliability	Highly reliable. Various methods are used for estimated the reliability index.	Less reliable. Reliability index difficult to estimate.

Point	Objectives Type Test	Essay Type Test
Objectivity	Objective in scoring the answers for the students. Personal factors don't influence scoring procedure.	Subjective scoring procedure is highly influenced by personal factors.
Validity	Valid, validity coefficient is estimated by employing various methods.	Not valid. Validity coefficient is difficult to obtain.
Norms	Standardized by developing norms.	Cannot be standardized and it's difficult to develop norms.
Guessing factor	Items can be attempted correctly by guessing. It is used for the correction.	No scope for guessing but the students can cheat and bluff the examiner.
Impact of Handwriting	Language and handwriting do not influence score. Expression and language can not be measured.	Handwriting and language have great influence on scores.

Point	Objective Type Test	Essay Types Test
Learning Objective	Useful for measuring cognitive lower objectives cannot be used for affective objectives	Applicable for measuring cognitive and affective higher learning objectives.
Administration	Difficult Administration. Specific instructions are given.	It is easy. Specific instructions are not essential.
Fatigue	The students feels fatigue because a large number of questions are to be answered in short period.	The student relatively feel less fatigue, because five questions are to be answered.
Preparation of Students	Students have to study the minute concepts thoroughly.	Students have to prepare broad and important concepts. Sample papers are used.