

Curriculum and Educational Evaluation



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Lets tell

- ★ Which subjects have you studied so far in the school?
- ★ Which co-curricular programmes were arranged in your school?

6.1 Curriculum

Before coming to the school we learnt many things from our family, friends, neighbours etc. This learning happens informally. We get planned education in the schools. We learn various subjects in the school and complete the relevant subject practicals. We also participate in various competitions, dance, music and various sports. It means that, in school we complete all the scheduled activities in a disciplined way. We take formal education in the schools. For this purpose educational aims and objectives are framed. While framing the objectives, physical, mental, social, emotional and moral development of the students is considered. So we take into consideration the basis of educational philosophy, educational psychology, educational sociology, etc. All round development of the students is the main aim of education. So to develop various skills among students, to give subject knowledge as well as to develop potential talents, is also equally important. So at school level, developing curriculum is an important task.

Curriculum is the important means to fulfil the aims and objectives of education. Curriculum is decided to give guidance about what to teach and how to teach the students. While developing the curriculum, age group of students, their interests, environment, society etc. are considered. Curriculum gets changed from time to time. In order to include the changes, curriculum is developed according to strata of education. After developing curriculum, syllabus is designed for each standard. Subject experts from concerned subjects collaborate together and develop the curriculum. So what is curriculum? How curriculum is developed? What are the principles of curriculum development? It is essential to study these issues regarding curriculum.



Do you know?

The English word 'curriculum' is derived from Latin language. Original Latin word is 'currer' means to run/to proceed.

6.1.1 Concept of Curriculum

By curriculum, we consider many school subjects. It includes textbooks, content and its structure of the subject. So in order to understand what is curriculum, it is necessary to learn definitions of the curriculum given by some educationists.

According to **Manroe**, “Curriculum embodies all the experiences which are utilized by the school to attain the aims of education.”

“Curriculum does not mean only the academic subjects traditionally taught in the school, but it includes totality of experiences that a child receives at the school. In this sense, the entire school life becomes the curriculum, which touches all aspects of the life of the students and help in all round development of the personality.” - **Secondary Education Commission Report.**

In short, Curriculum means to impart knowledge of various subjects, to complete the projects related to the subject, to arrange various co-curricular activities, to develop the potential qualities among the students, to take the students for educational excursion, to make the learning process more joyful and to give more and more enriched experience. The fulfilment of aims of education and the achievement of objectives of education depends on curriculum. Hence curriculum development has great importance in education. Why to teach? What to teach? How to teach? How many objectives are fulfilled? To find the answers for these questions the following points should be considered :

- (1) **Educational Objectives** - In the beginning, the objectives of the subject are decided according to the age group and stage of education of the student.
- (2) **Content** - After framing the objectives, subject content is decided. The difficulty level is decided on the basis of individual differences and the content is decided accordingly.
- (3) **Teaching Methods and Tools** - Different teaching methods are used to teach the content given in the textbook. Various tools are used to give variety of learning experiences to the students.

- (4) **Tools of Evaluation** - Various evaluation tools are used to check, to what extent the educational objectives are achieved? Whether the desired change in student's behaviour is occurred or not.

6.1.2 Principles of Curriculum Development

While considering the components of curriculum, following principles should be considered :

- (1) **Curriculum should be Target Oriented** - Curriculum is an important tool to achieve the educational aims and objectives. Curriculum is developed to fulfil the objectives in cognitive, affective and psychomotor domain. Also the intellectual, emotional, moral, social and professional development should be achieved through the curriculum. These objectives should be stated in the form of change in behaviour of the students. To bring about these behavioural changes, all types of the learning experiences are considered in the curriculum development process. The age, interest, maturity level etc. of the students are considered while arranging the learning experiences.
- (2) **Curriculum should be Value Based and Life Oriented** - It is important to inculcate various values through teaching of different subjects. Curriculum is to be developed to cultivate and develop the values like patriotism, punctuality, dignity of labour etc. There should also be a provision in the curriculum to teach how life can be lived happily.
- (3) **Curriculum should Satisfy the Needs** - It is necessary to impart education which can satisfy the needs of life. The needs of life are ever changing. The present day needs of students and the society, should be fulfilled through the curriculum. The curriculum should be framed according to the needs and the surrounding environment.

- (4) **Curriculum should be Skill Oriented** - Besides the content of various subjects, different skills should be included in the curriculum. There should be variety in the curriculum. The skills like self awareness, effective communication, problem solving, stress management etc. should be inculcated through various activities.
- (5) **Curriculum should be Student Centred and Activity Centred** - While developing the curriculum, the age group, interest, etc. of students should be considered. There should be provision of practical education along with bookish knowledge. Curriculum should include activity based programmes like experiments, projects, educational tours etc., in order to give enough scope for student activity.
- (6) **Curriculum should Enrich Personality Development of an Individual** - The bookish knowledge is not sufficient for all round development of a personality. In order to live the life happily and prosperously, curriculum should be developed according to the interest of the students. While developing the curriculum, the content and activity, various actions should be planned by considering all types of students, so that the students will be appreciated for their qualities. They can develop their hobbies and interests. For this purpose, the list of co-curricular activities and the guidelines for implementing these programs, should be given in the curriculum.
- (7) **Curriculum should be Vocation Oriented** - According to common people, the use of education is to become economically self reliant. Education is considered as

a means of earning and to fulfil the practical needs. So curriculum should facilitate the livelihood of students. Subjects of vocational education should be included in it.

- (8) **Curriculum should be Flexible and Dynamic** - The curriculum should be flexible and dynamic. There should be provision for change according to place, time and situation of social life, because there is a constant change in the knowledge and basic concepts of the subjects. In order that the student should not lag behind in the global competition, the curriculum should get changed accordingly.

6.2 Educational Evaluation

6.2.1 Concept of Educational Evaluation

Measurement is a concept used in daily life. Measurement means to count. We do measurements of area, height, weight, distance, time, etc. We do measurements in daily life for various purpose, e.g., 3 meter cloth, 10 kg. onions, 2 litre milk, 4 hours study etc. There is a numeric expression in measurement. Accuracy and reliability are the characteristics of it. Measurement can be calculated in terms of multiple. Various units are used for various measurements.

'Evaluation' is one of the important concepts in education. Evaluation can be done of any educational or other activity. Measurement and evaluation are two different terms, but there is a correlation between them. Evaluation depends on measurement. By measurement we can get the answer of 'how much' but by evaluation we get the answer of 'how good' it is.

'Evaluation is a systematic method to determine, to what extent educational objectives are achieved.'



Classify it

Classify the following examples as measurement and evaluation. (1) Height, (2) Weight, (3) Marks obtained in term end examination, (4) Good handwriting, (5) Only quantitative marks, etc. (6) Communication skill, (7) Use of rules described in civics in daily life.



Do you know?

The term 'evaluation' is mainly used for abstract things instead of person, e.g., the curriculum and the syllabus. The conclusion drawn related to evaluation procedure by researcher are quantitative and qualitative.

In short, Evaluation = Quantitative Description + Qualitative Description + Feedback of teacher.

Action is expected in evaluation. Evaluation always leads to a better action and practice. Evaluation is systematic.

e.g., Sanika obtained 13 marks out of 15 in an essay and Swapnil obtained 8 marks. The feedback given by the teacher is as follows :

Sanika's handwriting was neat and legible with proper rendering of language. It was grammatically correct. Word arrangement was proper and relevant. The introduction and closure was done with attractive poem, content was meaningful. It reflects that Sanika has the interest in extra reading and has practice of writing and presentation.

On the contrary, Swapnil's handwriting was not good and grammatically it was incorrect. Various examples, illustrations were not included in the writing. Poem, quotations were not used. He has no practice of writing, he has not drawn a line over marathi words, new points were not started with new paragraph, margins were not marked. There was absence of neatness in writing.

It means that only measurement is not sufficient while doing evaluation of a student. Evaluation does not mean the marks obtained in all the subjects of examination.

Evaluation helps to understand the progress of the students. Learning techniques can be assessed. New educational programs can be implemented. Evaluation is useful for assessing the educational standards of the school.

Teaching, learning and evaluation are the integral and inseparable parts of educational system. It is necessary to have effective interaction amongst these three.



From the above diagram it is clear that there is a close and internal correlation between teaching, learning and educational objectives and these things are interdependent. So all these components are important and have equal place.

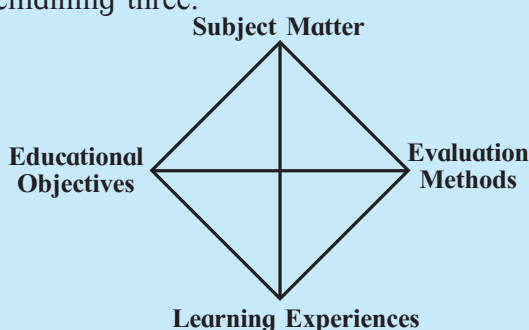
Educational objectives, learning and teaching methods are changing according to the changing needs. So it is essential to change the evaluation method. Evaluation is continuous and comprehensive and it should be nourishing to teaching-learning. The teacher need not wait for the final evaluation in order to see whether the students are applying the knowledge that has been taught, as he has an opportunity to evaluate it frequently. Instead of written examination, proper evaluation can be done through observation. Continuous evaluation is effective to know, how much content the students utilise in daily life. It means that, not only qualitative but also quantitative evaluation can be done. This evaluation is not limited to the school examinations, but the process goes on continuously. Because of this,

the narrowness in learning-teaching reduces and it becomes more broad and constructive.



Let us know

Dr. Patel defined educational evaluation on the basis of four points instead of three, where interrelationship exists among educational objectives, content, learning experiences and evaluation methods. In that case, each component depends on the remaining three.

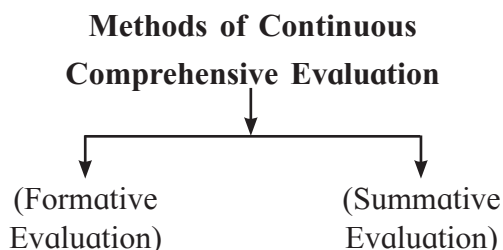


Discuss it

Discuss about the merits and limitations of evaluation done by teacher, by observing the behaviour of students and through written examination at the end of the year.

6.2.2 Continuous Comprehensive Evaluation

A useful procedure at school level for continuous evaluation of all the aspects of personality development of the students means Continuous Comprehensive Evaluation. It is necessary to emphasise Continuous Evaluation of comprehensive learning and observable behaviour of the student. Following two evaluation methods are involved in Continuous Comprehensive Evaluation :



● **Formative Evaluation** - A step by step and regular evaluation, while developing the personality of the student continuously, is known as formative evaluation. In this type of evaluation, the observation of the student behaviour at different events are recorded. In formative evaluation, following tools and techniques are used :

- (1) Daily observations
- (2) Oral (elocution, communication, interview, group discussion, question answers, loud reading, role playing, etc.)
- (3) Practical/Experiments
- (4) Activity (individual/group, self learning)
- (5) Projects
- (6) Test (Short duration informal written test, open book test)
- (7) Exercise/Class work (Information writing, Descriptive writing, Essay writing, Report writing, Story writing, Letter writing, Dialogue writing etc.)
- (8) Other - questionnaire, peer evaluation, self evaluation, group work and other such tools

Formative Evaluation can be used on a large scale, considering the standard, subject and objectives.

● **Summative Evaluation** - Evaluation in an integrated manner after a certain period, means Summative Evaluation. First summative evaluation can be done at the end of first term and second can be done at the end of second term. As per the objectives of the subjects, nature of Summative Evaluation can be either written, oral or practical.

Following objectives are considered in Continuous Comprehensive Evaluation :

- (1) To achieve all round development of the students.
- (2) To evaluate knowledge, comprehension of the students in detailed and continuous manner and to enhance their ability.

- (3) To develop the physical and intellectual competencies of the students.
- (4) To develop knowledge, competency and special intelligence of the students.
- (5) To educate students through student centric methods like activities, discoveries and research.
- (6) Students should be free from fear, pressure and worries; and to help them to express their opinion freely.

Due to continuous comprehensive evaluation, the students are getting immediate feedback and motivation for further work.

Students are evaluated continuously, so the teachers can also focus on their drawbacks in teaching and get the opportunity to overcome them.

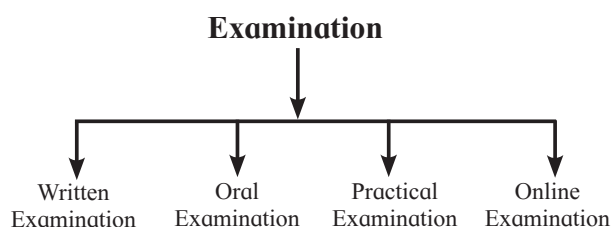


Discuss it

Discuss with your friends, the advantages of Formative and Summative Evaluation.

6.2.3 Examinations

Educational objectives are decided for all-round development of the students. To find out how far these objectives are fulfilled and how the learning experiences are effective, different evaluation tools are considered. Evaluation tools are classified as Quantitative tools and Qualitative tools. Quantitative tools mainly include examination pattern. Examinations are of different types - written examination, oral examination, practical examination and online examination. Written examinations include essay type questions, short answered type questions and objective type questions. You can also understand the types of examinations by following diagram :



Discuss it

Discuss the demerits of present examination system in the classroom.

(1) Written Examinations

Written questions are prepared and the students give response to these question in written form. Such type of examination is known as written examination. Written examination is one of the useful tools for the student's evaluation. Written examination is used as proof for the student's achievement. We can conduct written examination for all the subjects but for that, we have to see all types of objectives of questions in the curriculum. As the students write answers in written form, these written examinations are more effective than oral examinations, hence they are mostly used.

• Advantages of Written Examination

- (1) Written examination is the most easy and useful tool of the evaluation.
- (2) Easy to plan the examination of many students at a time.
- (3) Written examination gives motivation to the students for learning.
- (4) Written examination can motivate students for healthy competition.
- (5) Written examination guides teachers to bring desirable changes in their teaching.
- (6) Due to written examinations, students' progress in different subjects can be recorded and it enables to make the comparison.
- (7) Students' writing skills are developed due to written examination.
- (8) Students' achievement level can be decided on the basis of their scores in the examination.
- (9) Due to various types of questions in the examination, evaluation of all objectives is possible.
- (10) Written examinations are useful for shy and timid students to express their thoughts.



Discuss it

Discuss in the classroom about the merits and demerits of written examination.



Remember it

Written examination can be conducted on the basis of following types of questions :

- (1) Objective Type Questions.
- (2) Short Answer Type Questions.
- (3) Essay Type Questions.

(1) Objective Type Questions

• Advantages of Objective Type Questions

- (1) All the units of different subjects can be included in the question paper.
- (2) Question for 1 mark can also be asked in the question paper.
- (3) It is useful for testing the objective 'knowledge.'
- (4) These type of questions are more reliable.
- (5) The habit of deep study can be developed among the students due to this type of questions.

• Limitations of Objective Type Questions

- (1) It is difficult to frame objective type questions.
- (2) Question paper becomes lengthy due to this type of question.
- (3) The probability of mechanical responses by the students is high for this type of questions.
- (4) These type of questions are not useful for developing reasoning ability.
- (5) These questions are of no use to develop logical presentation, writing style, mastery over language etc.

(2) Short Answer Type Questions

• Advantages of Short Answer Type Questions

- (1) Short answer type questions carry 2 or 3 marks, so these questions can be framed on various units of the curriculum.

- (2) The objectives namely knowledge, comprehension, application and skill can be tested due to this type of question.

• Limitations of Short Answer Type Questions

- (1) Students find it difficult to write the answers with minimum words.
- (2) Students write the answers in their own words, so subjectivity can be observed in marking system.
- (3) Hand writing, orthography can affect on marks.
- (4) If the answers of short answer type question are ambiguous, then marking becomes difficult for the examiners.

(3) Essay Type Questions

• Advantages of Essay Type Questions

- (1) Framing of essay type questions is comparatively an easy task.
- (2) Essay type questions are useful for all subjects.
- (3) Question paper of essay type questions is compact, so expenditure on printing and paper is less.
- (4) Proper presentation of points are required while writing the answers of these questions, therefore good study habits can be developed among the students.
- (5) These types of questions are to be answered in many sentences in a paragraph form; hence we can evaluate students' writing competency, systematic presentation of thoughts, expansion of ideas and sense of appreciation.

• Limitations of Essay Type Questions

- (1) All the units of curriculum can not be involved in essay type question.
- (2) There is more possibility of guess work in these answers.
- (3) Hand writing, style of writing can affect the marks.

- (4) Lack of objectivity is seen while assessing these answers.
- (5) Evaluation depends upon the mood of the examiner.

(2) Oral Examination



Lets tell

Which skills can be mastered among Kindergarten upto 10th standard students through oral examination?

Oral examination is meant to evaluate and explore students' achievement through asking questions in face to face mode.

Oral examination can be conducted for many subjects at primary and secondary level. Here oral response is expected, and it is natural, non-formal and immediate in nature. Listening skill, loud reading skill, communication skill, map reading skill, graph reading skill, tables, oral examples are involved in this examination.

The Advantages and Limitations of oral examination are as follows :

• Advantages of Oral Examination

- (1) Oral examination is useful to diagnose about students' mistakes immediately.
- (2) Oral examination is useful for such students, whose writing skills have not been developed.
- (3) Oral examination is useful for identifying the qualities like presence of mind, stage daring, oratory and communication skills.
- (4) Oral examination is appropriate to measure the skills like pronunciation, spoken skill, story telling, dramatization etc.
- (5) This examination is beneficial in daily teaching, for judging student's progress.
- (6) Printed question paper is not required, so the expenditure is less in oral examination.

• Limitations of Oral Examination

- (1) Oral examination is time consuming.
- (2) Overall evaluation of knowledge and skills of the students can not be done by this examination.
- (3) All the students cannot be asked questions of same level in this examination.
- (4) Records of answers given by the students are not maintained. So, question analysis and marks verification is not possible.
- (5) Questioning and evaluation depends on the mood of examiner.
- (6) Subjectivity of an examiner affects on evaluation on large scale.

(3) Practical Examination



Lets tell

- ★ How were your teachers conducting the examinations of work experiences in preparing paper articles, stitching, embroidering?
- ★ How has been the examination for science experiment conducted in your school ?

When written examination and oral examination cannot evaluate the specific objective, then practical examination is useful for evaluating the specific objective or skill, in school subjects.



Discuss it

How to evaluate the specific objectives or skills through practical examination ?

• Evaluation in Practical Examination

- (1) **Direct Observation of an Activity** - It is important to evaluate the students' act by direct observation. e.g., direct observation is important in singing to check the 'Rhythm' and 'Sur' is appropriate or not, appropriate use of apparatus in science experiment, use

of microscope etc. Some acts of the students can be evaluated through direct observations.

- (2) **Testing of Prepared Objects/Articles** - When the examination is conducted for many students, then it becomes difficult to observe their direct activity. In such case, things prepared by the students can be evaluated at the end of the activity. e.g., making of pearl jewellery, drawing, stitching, weaving, model preparation for science, drawing maps etc.

- (3) **Study of mechanical structure** - Asking students to connect various parts of a machine, by which, how the students study about the various parts of a machine, can be evaluated. e.g., Preparing electrical circuit assembly of television etc.

● **Essential Things for Practical Examination**

- (1) Standardized apparatus should be given to the students during practical examination.
- (2) Apparatus should be in proper condition given to the students, during practical examination.
- (3) Apparatus given to the students during practical examination should be proper from safety point of view.
- (4) Generator or U.P.S. should be provided, if the experiments are related to electricity.

● **Advantages of Practical Examination**

- (1) This examination can evaluate such objectives, which cannot be evaluated by written and oral examination.
- (2) How students are using their knowledge can be assessed through this examination.
- (3) This examination is useful for skill oriented subjects. e.g., Science Experiments, Music, Dance, Singing, Playing Instruments, Work Experience, Physical Education, Computer etc.

- (4) This examination is useful for students, who have less speed in writing and difficulty in language.

- (5) Through this examination evaluation can be done during the examination and after concluding the examination also.

- (6) Evaluation of objectives, namely application and skill, can be done through the practical examination.

- (7) It is reliable and valid, as the examiner offer marks by direct observation of activity.

● **Limitations of Practical Examination**

- (1) Practical examination is time consuming.

- (2) This examination cannot be conducted without the availability of the apparatus for experiment.

- (3) This examination is not useful for all the subjects.

- (4) Apparatus is available for only a few experiments, so, students are given the same experiments again and again.

- (5) All the objectives for evaluation cannot be considered in this examination.

- (6) It is difficult to grade learning outcome of the students accurately.

- (7) Practical examinations are time consuming and expensive.

(4) Online Examination

New approach for conducting examination through computer is the new concept in examination system. Conducting examination on computer with the help of internet is known as online examination.

In online examination, computers are connected with each other for immediate results and students can appear for the examination according to their own time. In online examination, different questions can be stored in the computer according to the objectives, type of question, difficulty level, unitwise (groupwise).

Various traditional examinations are conducted at various examination centres. Lot of preparation is required on the centres for that. e.g., Question papers according to the strength of the students, answer sheets, seating arrangement etc. On the contrary, Online examination can be conducted only with computer and Internet. Traditional examination can be conducted two times in a year. Online examination can be conducted many times in a year. Results are obtained immediately, so the students can take the further decision quickly.

• Advantages of Online Examination

- (1) Paper, pen is not required because this examination is conducted on a computer.
- (2) This examination is conducted on a computer, so handwriting cannot affect on marks.
- (3) No subjectivity in marking system due to this examination.
- (4) This examination is easy and systematic for students.
- (5) There is no barrier in putting the pictures and figures in the question paper.
- (6) Different time limit can be set for different questions.
- (7) Practice of online examination can be provided to the students by making Mock Tests available.
- (8) Online examination can be conducted for many times and at any time.
- (9) Foreign tests also can be given online.
- (10) Immediate declaration of results for some online examinations is possible.

• Limitations of Online Examination

- (1) Difficulties can be faced by the students during examination, who don't have the knowledge of computer.
- (2) Technical difficulties can be faced by the students during online examination. e.g., computer error, reduced speed of Internet, interrupted power supply etc.
- (3) Question has to be solved in given time. Otherwise in few cases, students won't get the opportunity for rethinking.

- (4) Restricted number of students can appear as per availability of computers.
- (5) This examination cannot be conducted for all the subjects.
- (6) This examination cannot be conducted for all the units of the same subject.
- (7) In this examination, all the objectives cannot be considered for evaluation.
- (8) It is not easy to conduct examination for essay type questions.
- (9) This examination is expensive.



Discuss it

Discuss regarding the difficulties of online examination with your friends.



Let us know

Various new methods and techniques are coming in practice for educational evaluation. These enable us to evaluate students' various competencies and skills more effectively.

- **Open Book Examination :** In this kind of examination, while writing the answers, the students are allowed to refer to books for finding the reference. Such a type of examination helps to judge students' thinking skill. It avoids giving unnecessary importance to memorization.
- **Case Based Questions :** In usual written type of examination, some questions can be of case-based type. In such questions, some case, event or a situation is shortly described. The students have to write the answer of the question which is based on this case. Its answer is to be written on the basis of application of knowledge which is already learnt.
- **Use of Rubric :** Rubric is a useful tool of evaluation. Rubric is a set of verbal descriptive statements, which are used for evaluation, instead of using only numerical marks or grades like A, B, C etc.

Q.1 (A) Complete the statements by selecting the appropriate option from the given options.

- (1) The is the totality of school life which touches all the aspects of the students' life and brings about the balanced development of their personality.
 (a) Syllabus (b) Curriculum
 (c) Evaluation (d) Textbook
- (2) Students' writing skill and mastery over language can be understood through
 (a) Oral examination
 (b) Practical examination
 (c) Written examination
 (d) Online examination
- (3) The is not included in formative evaluation.
 (a) Project
 (b) Oral work
 (c) Annual examination
 (d) Daily observation

(B) Write the answers in one sentence.

- (1) What is a curriculum?
- (2) What is educational evaluation?
- (3) What is Continuous Comprehensive Evaluation?
- (4) What is online examination?

(C) Write the answers in one to two words.

- (1) What are the methods of Continuous Comprehensive Evaluation?
- (2) State the types of questions used in written examination?

Q.2 Explain the following in about 50 to 80 words.

- (1) Advantages of short answer questions
- (2) Limitations of Oral Examination
- (3) Essential requirements for Practical Examinations
- (4) Advantages of Online Examinations
- (5) Objectives to be considered for Continuous Comprehensive Evaluation

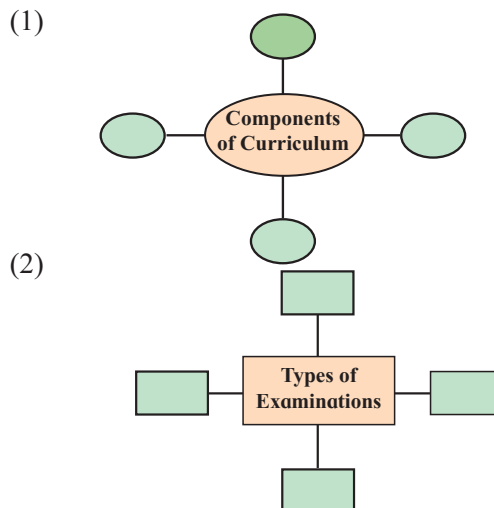
Q.3 Write the short notes.

- (1) Factors of Educational Evaluation
- (2) Written examination
- (3) Evaluation in practical examination

Q.4 Explain the differences.

- (1) Measurement and Evaluation
- (2) Formative Evaluation and Summative Evaluation
- (3) Written Examination and Online Examination.
- (4) Oral Examination and Written Examination.

Q.5 (A) Complete the following concept designs.



(B) Fill in the following chart, mentioning the types of evaluation of the given activities.

(to draw the circle of given measurement, to play tabla, to connect the loud speaker for school programme, to draw landscape, to play a song on harmonium, to repair the damaged machine)

Direct observation of an activity	To examine prepared article	To study the mechanical structure

Q.6 State your opinion about the following statements.

- (1) Educational evaluation is a Continuous and Comprehensive process.
- (2) The components of Curriculum are interdependent.

Q.7 Write the answers of the following questions in 100 to 150 words.

- (1) What is formative evaluation? Explain with examples, the tools and techniques used in formative evaluation.
- (2) Explain with examples, the Principles of Curriculum Development.
- (3) Prepare five objective type questions to assess the students' general knowledge. And write advantages and limitations of objective questions.
- (4) Write your suggestions regarding how to improve the written examination.
- (5) Write in detail your suggestions in order to improve oral examinations.

