

# Pedagogy



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From your childhood till date think what all have you learnt from whom and how has it made a positive change in you; and complete the following table.

What did you learn?	From whom did you learn?	Positive behavioural change	Positive change in personality

6.1 : Changes from childhood till today

Teaching means to convey the content to the students, to explain something in easy and simple language.

Teaching means conveying new content through different activities and programmes.

Teaching means assisting the students to systematically reconstruct knowledge gained through experiences. Teaching is a process which assists learning. Teaching is purposive. Bringing an ease in learning is the basic objective of teaching.

The science which studies the methods of teaching-learning is called as Pedagogy.



Observe the following pictures and discuss with your friends about 'meaning of teaching'.



Teacher is teaching





Change in behaviour (Untidy boy-Neat boy)



Students doing craft work



Teacher is appreciating the student

6.2: Teaching learning event

# Complete the table given below

Aspect of difference	Traditional approach of Teaching	Modern approach of Teaching
Aims/objectives of teaching		
Methods of teaching		
Role of teacher		
Content		

6.3 : Changes in Teaching

#### 6.2 Changing nature of teaching



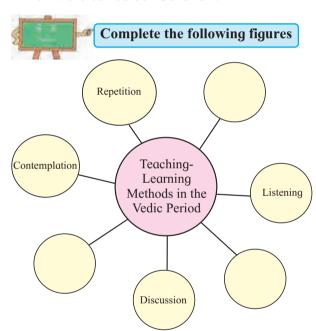
There have been changes in the nature of teaching as per changes in the needs, situation and time. These changes which have occurred from the ancient times till todays modern era can be understood from the information given below.

#### **6.2.1** Ancient teaching methods

# (1) Teaching methods during the Vedic Period

The Vedic education system is the first education system which emerged in the ancient India. This education system was based on the Vedic philosophy and thoughts and hence is called as the 'Vedic Education System'. According to this system there are two types of knowledge (Vidya), namely 'Paravidya' and 'Aparavidya'. 'Paravidya' refers to the most superior 'spiritual knowledge' or the 'knowledge of self realization'. 'Aparavidya'

means the knowledge which is useful in living the materialistic world. Both of these were essential for leading a worthy human life. Education used to be imparted in the 'Ashrams' which were called as 'Gurukul'.



6.4 : Teaching-Learning Methods during the Vedic Period

# (2) Teaching Methods during the Buddhist Period

According to Buddhism the ultimate aim of life is 'Nirvan' or 'Salvation'. The teaching methods focus on making an individual capable to achieve the state of 'Nirvana' or 'Bliss'. Their teaching methods include oral method/recitation, discussion and dialogue, debate, thinking, contemplating, meditation, lectures of the experts and scholars etc. The knowledge is acquired in the 'Vihars'.



Collect information during regarding the 'Buddhist Education System' from the internet.

# (3) Teaching Methods during Jainism Period

In Jainism following teaching methods were used.

- 1. Preaching:-
  - Discourse
  - Dedicated practice of listening with concentration

# **6.2.2** Teaching Methods in the Modern Period

In the later half of the 18th century the British, French and other people from the Western countries started coming to India. Radical changes occurred in education during this period. English language was introduced in education by Lord Macaulay in India. During that time mathematics and languages were given utmost importance. So recitation, reading, grammar translation etc. methods of teaching where used.

- 2. Reading religious scriptures:-
  - Reading with concentration
  - Reading of the correct and incorrect examples. (This technique is called as 'Aamanay').

## **Teaching-Learning Methods in Jainism**

- 3. Contemplation:-
  - Contemplation and thinking of read stories is termed as 'Anutpreksha').
- 4. Clarification of doubts:-
  - Clarifying the doubts arising after contemplation from the Acharya (Teacher) (This is called as 'Prachhanna').

#### 6.5: Teaching Methods in Jainism

# (4) Teaching Methods during Islamic Period

In Islam the primary education is given in the 'Maktabs' and the secondary education in the 'Madarsas'. Here recitation and storytelling methods are used. In higher education speeches, discussion, reading of the reference books, and self-study are the methods used for acquiring knowledge.

# Complete the Table

Which methods from the ancient period are used even today? Discuss their advantages and limitations.

<b>Education System</b>	Teaching Method
Vedic	
Buddhist	
Jain	
Islamic	

6.6 : Ancient Teaching Methods

Radical changes have occurred in the teaching methods in the post-independence period and the age of modern technology. Various sources of knowledge are available today. Use of variety of teaching methods is possible today due to technology and the knowledge of psychology.

The different teaching methods used in the post independence period have been discussed in point no. 6.6

# 6.3 Rationale for selection of teaching methods

- Previous knowledge of the students
  The previous knowledge of the students
  has to be first assessed so that any new
  subject content can be effectively
  conveyed to the students. For this purpose
  the teacher can ask questions, narrate
  story, use various teaching aids/(pictures,
  charts, maps) so that the students are able
  to recall their previous knowledge.
- Maturity of Students: While selecting the teaching method the teacher has to consider the age, physical and mental maturity, like-dislikes/interests and ability of the students.

# **Sources of Knowledge**

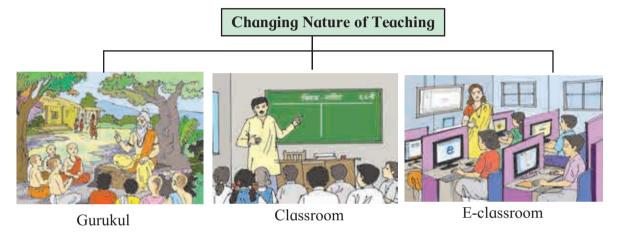
### **Ancient Period**

- Guru
- Teacher
- Scriptures
- Gurukul and Ashram
- University

# **Modern Period**

- Teacher
- E-learning softwares and devices
- Internet
- Social Media
- Newspapers

6.7 : Sources of Knowledge



6.8: Changing Nature of Teaching

- **Surroundings of the students:** The teaching method should be selected considering the geographical conditions of the student, whether he/she comes from rural or urban area.
- Available Teaching Aids: The teaching aids have an important role to play for teaching any subject, making the subject content easy to understand, giving variety of educational experiences. eg. charts, maps, pictures, models etc. Hence it is important that the teacher considers the available teaching aids and then selects the teaching method.
- **Expected time:** It is important to consider the allotted time period for teaching, while selecting the teaching method.
- **Scope of the content:** It is essential to take into consideration the scope of the

- content and also the content which has to be actually taught in the classroom while selecting the teaching method.
- Objectives of teaching: The teacher should think which method of teaching would be most suitable to achieve the objectives of the unit and accordingly select the method.
- Participation of students: The teacher should select a method which helps in obtaining the maximum participation of the students. From various teaching methods teacher should select appropriate teaching method.

#### **6.4 Principles of Teaching**

Teaching is an art as well as a science. Hence it becomes essential to consider the guiding principles of teaching. Following are the principles of teaching.



A principle is that which remains at the focus of any event, situation or behaviour.

- Principle of Motivation: Motivation is the inspiration to do any work. It is of two types-intrinsic and extrinsic. Teacher should himself/herself emphasize on intrinsic motivation and motivate the students. A teacher should identify the various needs of the students and accordingly find out ways to motivate them. Since achievement is the most effective kind of motivation, the teacher should guide the students accordingly.
- Principle of Learning by doing: For achieving positive behavioural change in the students, it is important to give them appropriate learning experiences. Actual experiences and experience gained by actual performing the task is most effective in the learning of the student. Hence the students should be educated using the principle of learning by doing.
- Principle of Life Oriented Education:

  The teacher should try to link the subject content to be taught to the student with actual life. The students should be able to use whatever they have learnt in actual life situations. For this it is important to give them education related to the aspects as shown in the following figure.

  Character formation

Lesson of Good Citizenship Life-oriented education Paily life

Development of various skills and competences

6.9: Life Oriented Education

 Principle of appropriate method of teaching: If a teacher wants to make the teaching effective they should make use of both traditional as well as modern methods of teaching considering the subject content to be taught and also the age of the

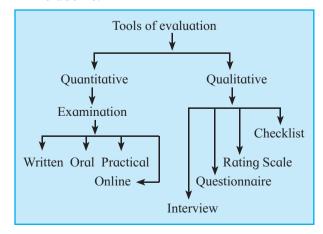
- students. Good teaching is assisting the students for learning. Teaching method should be interactive and give scope for students to be active.
- Principle of deep knowledge: A teacher can explain his subject properly and solve the doubts of his students only if he has deep knowledge of his subject. A teacher should always try to remain a learner and keep himself updated with the latest knowledge about his subject.
- **Principle of use of teaching aids**: Today teaching aids have got a lot of relevance in making the teaching-learning process effective. They are very important in giving direct as well as indirect experiences to the students.

### **Teaching aids**

Visual	Auditory	Audio-Visual
Chalk- Blackboard	Radio	PPT
Charts	Tape - recorder	Educational Videos
Pictures	Audio CD's	CD's
Maps		Mobile
Models		

6.10: Educational Devices

Principle of appropriate evaluation:
 The main objective of teaching is to have desirable behavioural change in the student. For this it is essential to have continuous comprehensive evaluation of students.



6.11: Tools of Evaluation

## **6.5 Maxims of Teaching:**



Why do we use of maxims? Maxims are used to make the learning of the students effective. The maxims of teaching are very useful in guiding the teachers for their teaching. These maxims are based on the principles of psychology of learning.

### (1) From Known to Unknown



- (i) Why is 'addition' taken as a reference while teaching 'multiplication'?
- (ii) Why are various stories, examples, references, given to explain the principle- 'It is easy to break, but difficult to join?'.

Any new concept should be taught to the student by linking it or relating it with previous knowledge i.e. what has been learnt earlier by the students. This helps in better understanding by the students. The maxim 'from known to unknown' is one of the basic and most important maxims of teaching. Using this principle reduces a lot of stress in the students while learning new concepts.

### (2) From Easy to Difficult



Tell the following concepts from easy to difficult. e.g. addition, multiplication of monimial, addition multiplication of binomial, word problems based on addition and multiplication.

It is necessary to teach easy and simple content first and then proceed to teach the content which is difficult and complicated to understand, or the students may find difficult to comprehend. Using the maxim 'easy to difficult' helps to develop in the students a feeling that they are able to understand the new content easily.

### (3) From Concrete to Abstract

The things which we are able to experience through our sense organs are concrete things. eg. book, table, building, etc. Those aspects which we are able to experience at the mental or emotional level are abstract. eg. Affection,

patriotism, hatred, greed etc.

• Prepare a list of concrete and abstract things.



Which concrete examples can we give to the students while explaining the concept of 'heat' in Science?

Concrete concepts are easier to understand than the abstract ones. They can be understood quickly. Abstract concepts are difficult to visualize. Hence while teaching we should explain the concrete concepts. First and then explain the abstract ones. This facilitates the understanding and learning of the students.

#### (4) From Particular to General

# What do you understand from following examples?

$$(1) 4 + 0 = 4$$

$$(3) -10 + 0 = -10$$

$$(3) 16 - 0 = 16$$

$$(4) -25 - 0 = -25$$

For many similar kind of examples we are able to formulate a rule. There is one particular principle which is related with different 'situation'. Hence while teaching certain topics it is essential to give specific examples and then based on it explain the rule or the principle

This maxim of going from particular to general is called as inductive method.

#### (5) From General to Particular



To explain the Proverb "United we stand, devided we fall."

Sometimes the rule, or the definition is explained first and then various examples related to it are given. This is general to particular. This maxim is exactly opposite of the maxim particular to general. When we use this maxim in our teaching, we are said to be using the 'Deductive Method'.

## (6) From Whole to Part



What will you do while learning a poem, which you like?

While teaching a subject first present a comprehensive picture in front of the students and then go into the details, i.e. make use of the maxim from 'whole to part'. This maxim is based on cognitive psychology. e.g. While teaching the different parts of a flower, we first show the entire flower and then its parts.

#### (7) From Part to Whole

# Complete the story using the following outline.

Dense forest - Robbers - rob the people - kill them - meet a monk - asked to pluck leaves of a tree - asked to again join the leaves to the tree-thieves unable to do so - monk's preaching.

### **Moral:** What do you learn from the story?

When logic of the students is developed and they have matured enough we should use the maxim from part to whole. This is exactly opposite of the maxim from whole to part. eg. You explain the different parts of the flower first and then the functions of the flower.

#### (8) From Empirical to Logical

The two ways of acquiring knowledge are - experience and logic. In the early years it is important for a child to acquire knowledge through experiences, i.e. Experiential learning. eg. Visit to a fort. Once the logical thinking has been developed and some basic knowledge has been acquired, it becomes appropriate to use the method focussing on the use of logical thought. e.g. Study of the fort after considering its architectural structure. The design of the fort, colour combination, the material used, water management etc. on the basis of which the students can logically derive about the then existing administration, life style, political life etc.

#### (9) From Psychological to Logical

Psychology always focuses on the emotional aspect, while logic focuses and is related with the intellectual or cognitive aspect. Hence while teaching poetry or while portraying the character it is important to explain the emotional aspect first, and then explain the central idea.

The teacher should use these principles as per the need of the content.

### **6.6 Different Teaching Methods**



Which different methods have been used by your teachers for teaching you? Explain with reasons which among those have you liked.

#### 6.6.1 Narration Method

For making the teaching effective a teacher has to assimilate a number of skills out of which one is skill of narration. Narration is the next step of the story telling method.

"Narration means a description of an event or a situation".

This method is used to explain new information, describe an event, incident or a scene. Narration can win the hearts of the students if it is done with ease, in appropriate speed, in a delightful manner and using appropriate gestures. It is necessary for the teacher to plan where and when to use this method on the basis of the content to be taught.



#### **Narration Method**

Merits	Limitations
Useful method for new knowledge.	Teacher centric method.
• Lot of knowledge can be imparted in less time.	Lack of students participation.
• To develop interest in the subject.	Psychologically inappropriate method.

6.12: Merits and Limitations of Narration Method



## **Find more Information**

Watch and listen various stories on the Youtube to understand the Narration Method.

#### 6.6.2 Lecture Method:-



#### **Recall and Discuss**

Which lectures among those you have heard until now, have you liked? Why?



According to you what do you mean by a 'Lecture'?

According to James Michael "The lecture is a pedagogical method where by the teacher formally delivers a carefully planned expository address on some particular topic or problem".

"The verbal flow of information imparted by the teacher to the student is called as a lecture".

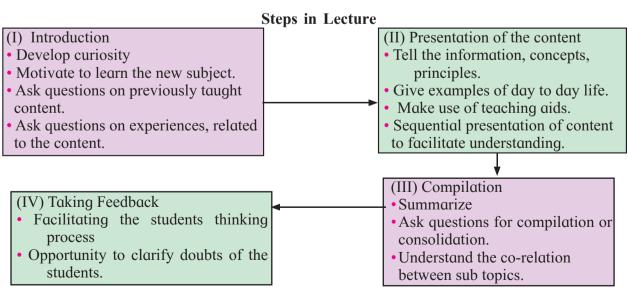


What kind of lecture would you like to listen to?

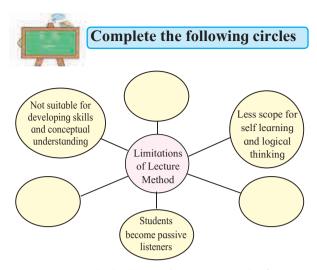
Everyone would like to listen to a lecture which has a good flow. A teacher delivers knowledge, principles, truths, new ideas and other information to the students through his lecture. Since it is the lecturer who talks continuously for a very long time in this method. It is a method which emphasises on one-way communication. Students have to take notes while listening 'Lecture'.

#### **Merits of Lecture Method**

- Students are motivated to learn due to effective narration.
- Students develop the habit of taking notes while listening.
- Develops oratory of the teacher.
- Useful method to explain new information, principles, concepts.
- Useful for describing events, explaining and justifying the principles.
- Useful to deliver abundant content to a big classroom within a very short time.



6.13: Steps of Lecture Method



6.14: Limitations of Lecture Method



Observe and listen to a lecture of an expert on a topic of your choice. Write a note on the style of presentation.

# 6.6.3 Source Method



How did you collect information about historical events/place?

This method is primarily used for teaching history. It is useful to make the teaching of history more objective. The truth of historical events can be traced using source method.

The study and use of original material and original sources, while teaching history is called as 'Source Method'.

"Critically examine and analyse the available sources or available proofs through research for finding out the truth behind the events and reaching towards a conclusion is called as Source Method".



Classify the various historical sources you have studied using the following table :-

Oral sources	Written sources	Things/ Buildings sources
<ul> <li>Folksongs</li> </ul>	Copper plate	Taj Mahal
•		Coins
•		
•		

6.15: Historical Tools

#### Merits of Source Method

- Sources help to make history of events, peoples and places more concrete and meaningful.
  - It helps to get information about historical research and reliable evidence.
  - The sources are useful to make history real and alive.
- It stimulates curiosity about the historical events.
- It helps to develop critical thinking and reasoning in the students.

#### **Limitations of Source Method**

- Since the sources may be available in different languages like Persian, Arabic, Sanskrit, Pali etc. the teacher and students may not be well-versed with them.
- It is a time consuming and expensive method.
- It is not useful for small children.
- If the information in the available sources is one sided, then it may distort the historical facts.



Collect information regarding Indian and Foreign institutions that undertake historical research.

#### 6.6.4 Journey Method

This method is used in the teaching of Geography, History and Languages.

In the journey method students are taken on an imaginary journey and given an indirect experience. It is important that the teacher asks relevant questions in the course of this imaginary journey. The journey method involves three following steps:-

#### (1) Introduction

The objective behind the journey is clarified. In this step the students are informed in advance that the journey is going to be imaginary.

### (2) Actual Teaching using Journey Method

The content is taught using maps, pictures, models, filmstrips etc. using narration. Some important points can be written on the blackboard.

#### (3) Evaluation

In this step questions are asked on the content that is taught and the students evaluation is done.

#### Merits of Journey Method

- Places which cannot be visited due to geographical conditions can be taught using this method. e.g. Volcanic mountains.
- It helps to save time, energy and money since students are taken on an imaginary journey.
- It helps to avoid dangers that may occur during an actual journey e.g. accidents, natural disasters, etc.

### **Limitations of Journey Method**

- Learning through an indirect experience is less effective than when an actual and direct experience is given.
- The method requires use of various learning resources to create an actual experience before the students. This may be difficult, time consuming and expensive work.
- It takes more time to teach the content than when taught using the regular method.



Which different subject content can be taught using Journey Method?

#### 6.6.5 Discussion Method

This method is useful for grown-up and mature students. These students have sufficient previous knowledge about the topic to be discussed, can think independently, can confidently and independently present and justify their thoughts and ideas and can also clarify doubts wherever required. Hence this

method is very useful for adolescents.

# Group Discussion, Panel Discussion, Dialogue:-

The teacher divides the students into groups and assigns them different subtopics, by dividing the content. The groups then prepare the topic using textbooks, reference books, maps, time line, internet sources, etc. Students discuss in their respective groups and the teacher moves around supervising and guiding them. After the students have learnt the content in the group, they present it before the entire class. Other students asks them questions and the group leader of the group who is presenting answers them. The teacher explains wherever he/she feels it is essential. In this manner all the groups come forward and the entire content is completed.

Discussion method is useful for teaching subjects like history, geography and language. In this method the role of the teacher is of a facilitator, and hence needs to have mastery over the content. Students are engaged in self-learning in this method. Hence they learn to think independently, become self reliant and confident. The lesson becomes more lively since all the students are active and involved. The spirit of cooperation is developed since lot of interaction takes place between the students.



#### **Discussion Method**

Merits	Limitations
• Can discuss based on the previous knowledge	• It is not useful for handicapped and small students.
• It helps to develop the skill of asking and answering questions accurately.	• Time consuming method.
•	•
•	•

6.16 : Merits and Limitations of Discussion Method

#### **6.6.6 Demonstration Method**

In this method the teacher demonstrates an experiment, actual objects, process etc. and explains it. In this method the teacher along with the students observes the experiment and keeps a record of the observations.



- From concrete to abstract or direct to indirect.
- Knowledge through observation.
- Only that which can be seen or experienced is the truth and is reliable.

This method is useful where students are not able to imagine about a concept or when explanation of a concept is difficult. Teacher actually performs the actions and explains. Students observe the teacher. They also assist the teachers during demonstration, take measurements, keep notings and also try to derive inferences and conclusions. Demonstration method is mainly useful for teaching Science subject.

# Observe the following picture and answer the questions.



6.17 : Teacher demonstrating an experiment in the laboratory

**Q.**: Observe the above given picture and explain the nature of demonstration method in your own words.

#### **Merits of Demonstration Method**

 Concepts can be clarified using this method, than merely explaining the concept.

- Students realize all the safety measures and precautions to be taken when conducting experiments which may be dangerous. e.g. preparation of clorine gas, hydrogen gas etc. and testing their properties.
- It helps to develop interest in science and also the scientific attitude among students
  - As compared to individual practicals, more number of experiments can be demonstrated within a short period.
- Students get opportunity to learn the ideal methodologies from experienced and expert individuals.

#### **Limitations of Demonstration Method**

- It doesn't use the principle of learning by doing.
- Students don't get the satisfaction and enjoyment of performing experiments individually.
- It is difficult to observe if there are large number of students in the classroom.
- Students may not get introduced to all the materials and equipments used for demonstration.
- Lack of pre-planning may result in an unsuccessful demonstration.

#### 6.6.7 Project Method

This is one of the important methods used in teaching. The American philosopher John Dewey is the proponent of this method. But his disciple W.H. Kilpatrick is regarded as the pioneer of this method. According to him when an individual does an activity himself, he remembers the content better.

According to W.H. Kilpatrick, 'A project is a whole hearted purposeful activity proceeding in a social environment'.

Dr. J.A. Stevenson defines project as - 'A project is a problematic act carried to completion in its natural setting'.

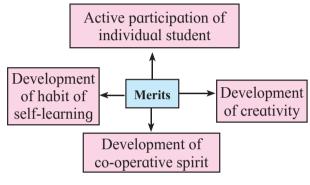
From the above definitions it is clear that in a project importance is on the activities of the students. The students undertake a task or a problem either individually or in a group. They themselves take efforts to solve the problem. To complete the project the students have to perform various tasks like gathering information, performing experiments, field

visits, reading, interacting with experts, etc. In all these acts the teacher plays the role of a guide or a mentor and wherever required even as a resource person. They also assess and evaluate the project work. This method is useful for teaching of all subjects in the school.

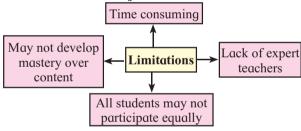
# **Steps of Project Method**

- (1) Selecting the topic for the project.
- (2) Planning of project.
- (3) Actual implementation of the project.
- (4) Evaluation.

# **Merits of Project Method**



# **Limitations of Project Method**

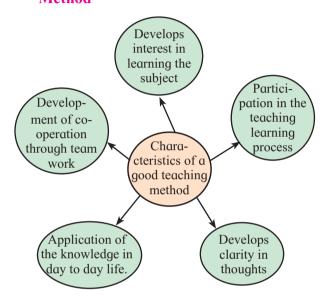


6.18 : Merits and Limitations of Project Method

# **Some Project Topics**

- Preparing models eg. Historical forts, types of houses, etc.
- Collections eg. Coins, objects, pictures, types of stones etc.
- Poster making Save environment, save the girl child, etc.

# **6.7 Characteristics of Good Teaching Method**



6.19 : Characteristics of Good Teaching Method



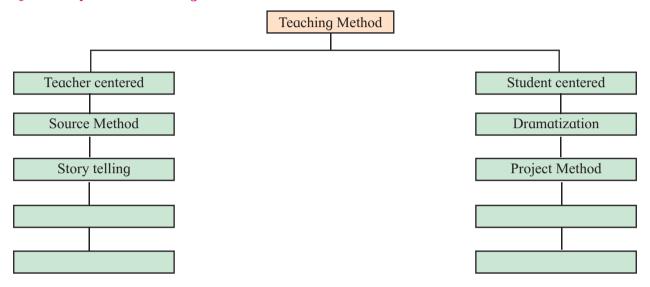
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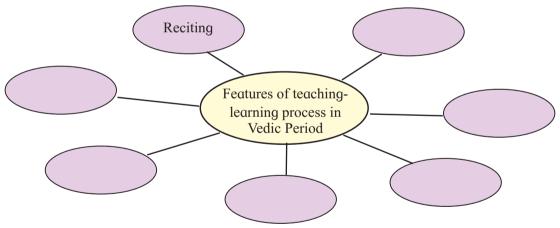
### Q.1 Match the columns A, B and C

A	В	C
(1) Jainism	(i) Ultimate aim is Nirvana	(1) Madarasa
(2) Islam	(ii) Gurukul	(2) Amnaya
(3) Vedic	(iii) Maktab	(3) Vihar
(4) Buddhist	(iv) Anutpreksha	(4) 'Para' and 'Apara' Vidya

### Q.2 Complete the following flow chart



# Q.3 Complete the blank circle of conceptual map



# Q.4 Answer in brief

- (1) Write any two definitions of teaching.
- (2) According to you what are the criteria of a good teaching method?
- (3) Explain in brief 'Narration Method'.
- (4) Write the limitations of 'Source Method'.
- (5) Write the objectives of 'Demonstration Method'.
- (6) Enlist the maxims of teachings.

#### O.5 Write notes on

- (1) The Islamic method of teaching.
- (2) Maxim From concrete to abstract.
- (3) Source method.
- (4) Steps of lecture method.
- (5) Discussion method.

### Q.6 Differentiate

- (1) Vedic Education System and Buddhist Education System.
- (2) From General to Particular and Particular to General Approach.
- (3) Journey Method and Project Method.

### Q.7 Answer in detail

- (1) Explain the changing nature of teaching.
- (2) Explain the Jain Education System.
- (3) Explain Project Method with an example.
- (4) Write the maxims of teaching along with examples.
- (5) Explain the principles of teaching.
- (6) Explain the lecture method along with its merits and limitations.

#### Activity/Project

- (1) Visit a historical place and write a report on it.
- (2) Arrange a competition on 'Narration' in your classroom.

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