TELANGANA RESIDENTIAL EDUCATIONAL INSTITUTIONS RECRUITMENT BOARD TREI-RB

Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	Pedagogy of Mathematics 05th Aug 2023 Shift 1
Subject Name :	Pedagogy of Mathematics
Creation Date :	2023-08-05 21:58:32
Duration :	120
Total Marks :	100
Display Marks:	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No

Show Reports :	No
Show Progress Bar :	No

Pedagogy of Mathematics

Group Number :	1
Group Id :	76469210
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Pedagogy of Mathematics

Section Id :	76469211
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1

Sub-Section Id : 76469211

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 1 Question Id : 764692901 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

This mathematical concept is definable.

Options :

1. ✖ Point

2. ✖ Line

3. ✖ Plane

4. ✔ Equilateral triangle

Question Number : 2 Question Id : 764692902 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is not a statement?

Options :

1. ✔ $3x + 2 = 14$

2. ✖ $7 \times 8 = 9$

3. ✖ A triangle consists of three rays and one vertex.

4. ✖ The sum of the measures of the interior angles of a triangle is equal to two right angles.

Question Number : 3 Question Id : 764692903 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is not a definition of a mathematical concept?

Options :

1. ✖ The numbers which are expressed in the form of p/q, where p and q are integers and $q \neq o$, are called 'Rational Numbers'.

2. ✔ Two lines are parallel if and only if they do not intersect.

3. ✖ A polynomial in x is an algebraic expression of the form $ax^3 + bx^2 + cx + d$, where, a, b, c, and d are constants.

4. ✖ A rectangle with all sides having equal measures is a square.

Question Number : 4 Question Id : 764692904 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

$x^2 + 5x + 6 = 0, \forall x \in R$. Here the symbol $\forall$ represents:

Options :

1. ✖ Conjunction

2. ✖ Disjunction

3. ✔ Quantifier

4. ✖ Implication

Question Number : 5 Question Id : 764692905 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

"If a line is drawn parallel to one side of a triangle to intersect the other two sides at distinct points, then the other two sides are divided in the same ratio." The converse of this theorem is:

Options :

1. ✔ If a line divides any two sides of a triangle in the same ratio, then the line is parallel to the third side.

2. ✖ If a line is drawn not parallel to one side of a triangle to intersect the other two sides at distinct points, then the other two sides are not divided in the same ratio.

3. ✖ If a line does not divide any two sides of a triangle in the same ratio, then the line is not parallel to the third side.

4. ✖ If a line is drawn parallel to one side of a triangle to intersect the other two sides at distinct points, then the other two sides are not divided in the same ratio.

Question Number : 6 Question Id : 764692906 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

A mathematical statement that is proved logically is called:

Options :

1. ✖ Axiom

2. ✖ Proposition

3. ✖ Conjecture

4. ✔ Theorem

Question Number : 7 Question Id : 764692907 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Who was the first mathematician to state that the value of π is approximately 3.1416?

Options :

1. ✖ Pythagoras

2. ✔ Aryabhatta

3. ✖ Bhaskaracharya - II

4. ✖ Srinivasa Ramanujan

Question Number : 8 Question Id : 764692908 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Who introduced the decimal system to the world?

Options :

1. ✖ Arabs

2. ✖ Egyptians

3. ✔ Indians

4. ✖ Greeks

Question Number : 9 Question Id : 764692909 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

For whom the mathematics is useful?

Options :

1. ✖ For the scientists

2. ✖ For the employees

3. ✖ For the traders

4. ✔ For all the human beings

Question Number : 10 Question Id : 764692910 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Arithmetic is the basis for the melodious tunes that come from musical instruments. In this context mathematics reflects this nature:

Options :

1. ✖ Abstract nature

2. ✔ Utilitarian nature

3. ✖ Verification nature

4. ✖ Speed nature

Question Number : 11 Question Id : 764692911 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following are well-defined, definite, clear, specific and measurable?

Options :

1. ✖ Goals

2. ✖ Aims

3. ✔ Instructional objectives

4. ✖ Educational objectives

Question Number : 12 Question Id : 764692912 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the characteristics of disciplinary aim that develop in the learner by learning mathematics from the following:

A) Culture
B) Accuracy
C) Reasoning
D) Self-evaluation

Options :

1. ✖ Only A and B

2. ✖ Only A, B and C

3. ✔ Only B, C and D

4. ✖ A, B, C and D

Question Number : 13 Question Id : 764692913 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Mathematics studied at the elementary level will be the base for mathematics to be studied at the secondary level. Thus, Mathematics has this value:

Options :

1. ✖ Artistic value

2. ✖ Information value

3. ✔ Preparatory value

4. ✖ Utilitarian value

Question Number : 14 Question Id : 764692914 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If a student is able to draw the graph of a linear equation using an appropriate scale, then the student has achieved this objective:

Options :

1. ✖ Knowledge

2. ✖ Understanding

3. ✖ Application

4. ✔ Skills

Question Number : 15 Question Id : 764692915 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If a pupil is able to explain the formula of permutations, then the pupil has achieved this objective:

Options :

1. ✖ Knowledge

2. ✔ Understanding

3. ✖ Application

4. ✖ Skills

Question Number : 16 Question Id : 764692916 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If a student is able to calculate the cost of canvas required to make a conical tent, when related information is given then the student has achieved this objective:

Options :

1. ✖ Knowledge

2. ✖ Understanding

3. ✔ Application

4. ✖ Skills

Question Number : 17 Question Id : 764692917 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If a student is able to list laws of exponents (verbal/symbolic), then the student has achieved this objective:

Options :

1. ✔ Knowledge

2. ✖ Understanding

3. ✖ Application

4. ✖ Skills

Question Number : 18 Question Id : 764692918 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

What is the advantage of writing teaching objectives in behavioural terms?

Options :

1. ✖ These are broad and philosophical in nature

2. ✔ These are measurable

3. ✖ These are related to school and the educational system.

4. ✖ These are theoretical

Question Number : 19 Question Id : 764692919 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

"Being able to relate mathematics to everyday life and other subjects" refers to which of the following?

Options :

1. ✖ Intellectual value

2. ✔ Utilitarian value

3. ✖ Cultural value

4. ✖ Information value

Question Number : 20 Question Id : 764692920 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Algebra is generalised form of this branch of mathematics:

Options :

1. ✖ Geometry

2. ✖ Trigonometry

3. ✖ Statistics

4. ✔ Arithmetic

Question Number : 21 Question Id : 764692921 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

At what age do students become capable of "abstract thinking"?

Options :

1. ✖ Between 0-2 Years

2. ✖ Between 2-7 Years

3. ✖ Between 7-12 Years

4. ✔ Above 12 Years

Question Number : 22 Question Id : 764692922 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

The teacher has to do this in order to bring out the "innate abilities" of the students:

Options :

1. ✔ More natural learning experiences should be provided

2. ✖ More homework should be given

3. ✖ More classwork should be given

4. ✖ More assignments should be given

Question Number : 23 Question Id : 764692923 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

For introducing trigonometry to the students, the teacher relates the topic with real life situations, the appropriate example for this from the following is

Options :

1. ✖ Using the different measures of a right angled triangle and talking about different ratios based on sides, etc.

2. ✖ Asking the student about triangles, different sides of a triangle etc.

3. ✖ Asking the student about triangles, different angles of a triangle.

4. ✔ Posing a simple puzzle related to heights and distances that can be found without measuring. E.g. A tree lies exactly on the other bank of a river of width 50m; find the height of the tree without going to other side of the bank.

Question Number : 24 Question Id : 764692924 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

The stages of cognitive development as suggested by Piaget can be applied educationally in this way:

Options :

1. ✖ Abstract concepts and abstract ideas can be taught at the primary school level.

2. ✖ Concrete concepts and concrete ideas cannot be taught at the primary school level.

3. ✔ At the school level, the mathematics curriculum can be designed according to the child's mental maturity and limitations.

4. ✖ At the high school level, students can be given opportunities to learn mathematical concepts by playing with objects.

Question Number : 25 Question Id : 764692925 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

As per constructivist approach, this can be done to enable "social scaffolding" in teaching and learning of mathematics.

Options :

1. ✖ Students may be asked to seek help from friends only who are more capable than themselves in mathematics.

2. ✖ Students can be asked to take the help of their parents only in learning mathematics.

3. ✖ Students can be asked to take help from their teachers only in learning mathematics.

4. ✔ Students can be asked to take help from not only those who are more capable than them in mathematics but also of other tools like computers, the internet, video clippings, library, etc.

Question Number : 26 Question Id : 764692926 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the steps involved in teaching mathematics through Interpretation construction (ICON) Model from the following:

A) Engage
B) Interpretation
C) Cognitive apprenticeship
D) Collaboration

Options :

1. ✖ Only A, B and C

2.

✖ Only A, B and D

3. ✔ Only B, C and D

4. ✖ A, B, C and D

Question Number : 27 Question Id : 764692927 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is **NOT** a phase in teaching mathematics following the "5E-Learning Model"?

Options :

1. ✖ Explore

2. ✔ Examine

3. ✖ Explain

4. ✖ Elaborate

Question Number : 28 Question Id : 764692928 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following is **NOT** a step in teaching mathematics by following the "collaborative approach"?

Options :

1. ✖ Problem identification

2. ✔ Problem analysis

3. ✖ Dividing / Forming into smaller groups

4. ✖ Conducting discussions, activities, experiments

Question Number : 29 Question Id : 764692929 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

This method of teaching mathematics is more suitable for '*verification*':

Options :

1. ✖ Project Method

2. ✔ Deductive Method

3. ✖ Synthetic Method

4. ✖ Analytic Method

Question Number : 30 Question Id : 764692930 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

A method of teaching mathematics that is useful to make "inference" based on observations among the following:

Options :

1. ✔ Inductive Method

2. ✖ Deductive Method

3. ✖ Synthetic Method

4. ✖ Analytic Method

Question Number : 31 Question Id : 764692931 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

This method of teaching mathematics is '*the process of removing the needle from the haystack*':

Options :

1. ✖ Inductive Method

2. ✖ Deductive Method

3. ✖ Synthetic Method

4. ✔ Analytic Method

Question Number : 32 Question Id : 764692932 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

This method of teaching mathematics is more suitable for "developing new subject or new idea by combining different elements":

Options :

1. ✖ Inductive Method

2. ✖ Deductive Method

3. ✔ Synthetic Method

4. ✖ Analytic Method

Question Number : 33 Question Id : 764692933 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

"Project method" originated from the following 'ism':

Options :

1. ✖ Idealism

2. ✖ Realism

3. ✔ Pragmatism

4. ✖ Naturalism

Question Number : 34 Question Id : 764692934 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following teaching method is based on the principles of "Learning by doing" and "Learning by observation"?

Options :

1. ✖ Lecture Method

2. ✔ Laboratory Method

3. ✖ Synthetic Method

4. ✖ Analytic Method

Question Number : 35 Question Id : 764692935 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

This method is most suitable for the teaching of mathematics to get rid of mathematics phobia among students due to the "abstract nature of the subject":

Options :

1. ✔ Activity-based Method

2. ✖ Deductive Method

3. ✖ Synthetic Method

4. ✖ Analytic Method

Question Number : 36 Question Id : 764692936 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

This method of teaching mathematics is most suitable to develop a "scientific and critical attitude" in the students:

Options :

1. ✖ Activity-based Method

2. ✖ Synthetic Method

3. ✖ Deductive Method

4. ✔ Heuristic Method

Question Number : 37 Question Id : 764692937 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

"A mother is four times as old as her daughter, 3 years back she was 5 times as old as her daughter was then. What are their ages at present?" This method of teaching mathematics is most suitable to solve this problem:

Options :

1. ✖ Activity-based Method

2. ✖ Project Method

3. ✖ Heuristic Method

4. ✔ Problem-solving Method

Question Number : 38 Question Id : 764692938 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

The best method/methods of teaching mathematics to teach the problem "what is the sum of interior angles of the convex polygon with 8 sides?" is/are:

Options :

1. ✖ Heuristic/Discovery Method

2. ✖ Project Method

3. ✔ Inductive and Deductive Methods

4. ✖ Analytic and Synthetic Methods

Question Number : 39 Question Id : 764692939 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the reasons why *'mathematics curriculum forms an important part of the overall school curriculum'* among the following:

A) It has always occupied an important place at the school stage due to its decisive role in building up our civilisation.

B) It is a self-contained independent discipline with its own language and structure.

C) It is being an independent discipline; it has a lot of applications in other branches of knowledge.

D) Its application is increasing in the development of all fields.

Options :

1. ✖ Only A

2. ✖ Only A and B

3. ✖ Only A, B and C

4. ✔ A, B, C and D

Question Number : 40 Question Id : 764692940 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

While designing the mathematics curriculum there is no need to take into consideration

Options :

1. ✔ Teachers' professional skills

2. ✖ Syllabus content

3. ✖ Classroom experiences or pedagogical style

4. ✖ Evaluation techniques

Question Number : 41 Question Id : 764692941 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

As per guidelines of which National Curriculum Framework (NCF), the main goal of mathematics education is to build abilities of "Mathematization" in students:

Options :

1. ✖ NCF-1975

2. ✖ NCF-1988

3. ✖ NCF-2000

4. ✔ NCF-2005

Question Number : 42 Question Id : 764692942 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the "basic principles" to be kept in view to construct a good mathematics curriculum by selecting appropriate topics among the following:

A) Curriculum must be child centered.

B) Curriculum must be related to everyday life.

C) Curriculum must be rationalistic.

D) Curriculum must be well integrated.

Options :

1. ✖ Only A and B

2. ✖ Only B and C

3. ✖ Only C and D

4. ✔ A, B, C and D

Question Number : 43 Question Id : 764692943 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which type of correlation is to be kept in mind while organising a mathematics curriculum that comes under the "Principle of Vertical Correlation"?

Options :

1. ✖ Correlation with other subjects

2. ✔ Correlation with the mathematics content of other classes

3. ✖ Correlation among different branches of mathematics

4. ✖ Correlation among different topics of the same branch of mathematics

Question Number : 44 Question Id : 764692944 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Arrange the following topics on the basis of their difficulty and logical order so that they can be introduced in different classes in the "Concentric Approach".

A) Similarity of triangles
B) Triangles
C) Angles
D) Basic concepts of geometry
E) Congruence of triangles

Options :

1. ✖ B, D, A, C, E

2. ✖ C, E, A, B, D

3. ✔ D, C, B, E, A

4. ✖ E, B, C, A, D

Question Number : 45 Question Id : 764692945 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Match the following branches of mathematics with the relevant definitions/statements.

A)	Arithmetic	i)	The study of relations between sides and angles of right angled triangles.
B)	Algebra	ii)	The study of space, figures and spatial relations.
C)	Geometry	iii)	Deals with numbers and operations on them.
D)	Trigonometry	iv)	Collects, analyses, and interprets the information collected in the numerical form called data.
E)	Statistics	v)	Starts with the study of variables, constants, expressions, equations, factorisations, etc.

Options :

1. ✖ A-iii, B-v, C-i, D-ii, E-iv

2. ✖ A-v, B-iv, C-ii, D-iii, E-i

3. ✖ A-iii, B-i, C-iv, D-v, E-ii

4. ✔ A-iii, B-v, C-ii, D-i, E-iv

Question Number : 46 Question Id : 764692946 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the points that must be kept in view in the selection of topics for school mathematics curriculum from the following:

A) There should be a logical flow

B) There should be a psychological flow

C) There should be a topical approach

D) There should be a spiral approach

Options :

1. ✖ Only A, B and C

2. ✔ Only A, B and D

3. ✖ Only A, C and D

4. ✖ A, B, C and D

Question Number : 47 Question Id : 764692947 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the points related to the approaches to be followed in organising the mathematics curriculum among the following:

A) A topic revision takes place in the topical approach.

B) Extensive learning of mathematical concepts and topics takes place in the concentric approach.

C) The spiral approach is helpful only for talented students.

D) The spiral approach helps in satisfying the psychological needs of the students.

Options :

1. ✖ Only A and B

2. ✔ Only B and D

3. ✖ Only A, B and C

4. ✖ A, B, C and D

Question Number : 48 Question Id : 764692948 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Read the following pairs related to the points that need to be kept in mind while preparing the "Unit and Year Plans":

A) Academic standards to be developed: Unit plan

B) The number of school working days: Unit plan

C) The number of teachers' casual leaves: Year plan

D) Time to teach each unit: Year plan

Choose the correct answer:

Options :

1. ✖ Only A and B

2. ✖ Only A, B and D

3. ✔ Only A, C and D

4. ✖ A, B, C and D

Question Number : 49 Question Id : 764692949 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Match the following phases/steps/components in the mathematics period plan with the corresponding items.

A)	Academic standards to be achieved by the students	i)	Model problem solving
B)	Teaching learning material	ii)	Communication, connections
C)	Introduction	iii)	Fractions disc
D)	Presentation and discussion	iv)	Topic announcement

Options :

1. ✖ A-ii, B-iv, C-i, D-iii

2. ✖ A-iv, B-i, C-ii, D-iii

3. ✖ A-iii, B-iv, C-i, D-ii

4. ✔ A-ii, B-iii, C-iv, D-i

Question Number : 50 Question Id : 764692950 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the advantages of the "unit plan" among the following:

A) The unit can be completed in a specified time

B) All topics can be taught in an order

C) The teaching objectives of a single lesson can be achieved

D) All the necessary teaching and learning materials can be collected well in advance

Options :

1. ✖ Only A and B

2. ✖ Only A, B and C

3. ✔ Only A, B and D

4. ✖ A, B, C and D

Question Number : 51 Question Id : 764692951 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

"Students can divide a given polynomial into factors" comes under the following academic standard:

Options :

1. ✔ Problem-solving

2. ✖ Reasoning and proof

3. ✖ Communication

4. ✖ Connections

Question Number : 52 Question Id : 764692952 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

"Students can explain that π is an irrational number" comes under the following academic standard

Options :

1. ✖ Problem-solving

2. ✔ Reasoning and proof

3. ✖ Communication

4. ✖ Connections

Question Number : 53 Question Id : 764692953 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

"Students can show the rational and irrational numbers on the number line", comes under the following academic standard

Options :

1. ✖ Problem-solving

2. ✖ Communication

3. ✖ Connections

4. ✔ Visualisation and Representation

Question Number : 54 Question Id : 764692954 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Who among the following should prepare a year plan?

Options :

1. ✖ Parents

2. ✖ Students

3. ✔ Teachers

4. ✖ Headmasters

Question Number : 55 Question Id : 764692955 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

One student wrote, "In ΔABC, $\angle A + \angle B + \angle C = 180^{\circ}$". Then, the student is said to have achieved the following academic standard:

Options :

1. ✖ Problem-solving

2. ✖ Reasoning & proof

3. ✔ Communication

4. ✖ Connections

Question Number : 56 Question Id : 764692956 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

'*Establish relationships between polygons and their names*' comes under the following academic standard

Options :

1. ✖ Problem-solving

2. ✖ Reasoning & proof

3. ✖ Communication

4. ✔ Connections

Question Number : 57 Question Id : 764692957 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Read the following pairs related to "teaching learning material and activities of mathematics that can be done with them":

A) Number Line: Rational numbers, their addition and subtraction processes can be shown.

B) Pegboard: The subtraction of like fractions can be shown.

C) Geoboard: Angles formed by the intersection of parallel lines by a transversal can be shown.

D) Grid paper: Concepts like fractions and percentages can be shown.

Choose the correct pairs/answer:

Options :

1. ✖ Only A, B and C

2. ✔ Only A, C and D

3. ✖ Only B, C and D

4. ✖ A, B, C and D

Question Number : 58 Question Id : 764692958 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the aspects which describe the "nature of mathematics" from the following:

A) Social
B) Abstract
C) Accuracy
D) Logical nature
E) Inductive and deductive reasoning

Options :

1. ✖ Only A, B and C

2. ✖ Only A, B and D

3. ✔ Only B, C, D and E

4. ✖ A, B, C, D and E

Question Number : 59 Question Id : 764692959 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the advantages of a '*good mathematics textbook*' from the following:

A) Useful in teaching prescribed syllabus in systematic way.

B) Unreliable teaching tool.

C) Saves teachers' and students' time.

D) Develops self-learning habit among the students.

E) Useful to promote teaching ability.

Options :

1. ✖ Only A, B and C

2. ✖ Only A, B and D

3. ✔ Only A, C, D and E

4. ✖ A, B, C, D and E

Question Number : 60 Question Id : 764692960 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which one of the following is a limitation of the mathematical laboratory?

Options :

1. ✖ The habit of verification will be developed among the students.

2. ✔

Takes a lot of time for learning.

3. ✖ Creativity will be developed among the students.

4. ✖ Understanding and interest in the subject will be developed in students.

Question Number : 61 Question Id : 764692961 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the technology/device among the following that can be used to teach mathematics

A) Software like GeoGebra
B) Mobile applications
C) Interactive boards
D) Open educational resources (O.E.R.s)

Options :

1. ✖ Only A

2. ✖ Only A and B

3. ✖ Only A, B and C

4. ✔ A, B, C and D

Question Number : 62 Question Id : 764692962 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Arrange the following steps in a systematic order that a teacher can follow in designing a '*multimedia*' resource for his students:

A) Defining specific objectives
B) Planning teaching strategies and methods
C) Planning materials and objectives
D) Evaluation process and recycling
E) Planning optimum utilisation of available resources and alternative arrangements

Options :

1. ✔ A, C, E, B, D

2. ✖ C, E, A, B, D

3. ✖ D, C, B, E, A

4. ✖ E, B, C, A, D

Question Number : 63 Question Id : 764692963 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the 'institutional resource/s' among the following for mathematics teaching and learning:

A) Bank
B) Post Office
C) Shopping Mall

Options :

1. ✖ Only A

2. ✖ Only A and B

3. ✖ Only B and C

4. ✔ A, B and C

Question Number : 64 Question Id : 764692964 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Student-centered evaluation means:

Options :

1. ✔ Evaluation that takes place based on learning approach and learning experiences.

2. ✖ Evaluation that takes place in the classroom only.

3. ✖ Evaluation that takes place at one time in one context only.

4. ✖ Evaluation that takes place in the form of a written test only.

Question Number : 65 Question Id : 764692965 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Teacher centered evaluation means:

Options :

1. ✖ Evaluation that can take place anytime and anywhere.

2. ✖ Evaluation that takes place continuously and comprehensively.

3. ✔ Evaluation that takes place assuming that the learner is merely a receiver.

4. ✖ Evaluation that takes place assuming that the learner is an active partner in learning.

Question Number : 66 Question Id : 764692966 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

The type of evaluation conducted to improve the teaching-learning process is:

Options :

1. ✔ Formative evaluation

2. ✖ Summative evaluation

3. ✖ Diagnostic evaluation

4. ✖ Prognostic evaluation

Question Number : 67 Question Id : 764692967 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum

Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify examples for "summative evaluation" from the following:

A) Quiz
B) Assignment
C) Project work
D) Quarterly examination
E) Half yearly examination

Options :

1. ✖ Only B and C

2. ✔ Only D and E

3. ✖ Only A, B and C

4. ✖ A, B, C and D

Question Number : 68 Question Id : 764692968 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Read the following pairs related to the points that need to be kept in mind while preparing questions for '*evaluation*':

A) Primarily written problems or questions involving more reasoning: Essay type questions
B) Involving one operation, the direct answer questions: Short answer type questions
C) Small problems, questions on definitions: Very short answer type questions
D) Questions involving more calculations, and more operations: Objective-type questions

Choose the correct pair/answer:

Options :

1. ✖ Only A and B

2. ✔ Only A, B and C

3. ✖ Only A, C and D

4. ✖ A, B, C and D

Question Number : 69 Question Id : 764692969 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the "local resources" that can be used in teaching-learning mathematics as part of the field trip from the following:

A) Organizations/ Offices
B) Places
C) Professionals
D) Mathematics exhibitions

Options :

1. ✖ Only A and C

2. ✖ Only B and D

3. ✖ Only A, B and C

4. ✔ A, B, C and D

Question Number : 70 Question Id : 764692970 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Heuristic Method is propounded by:

Options :

1. ✖ Froebel

2. ✔ Armstrong

3. ✖ John Dewey

4. ✖ Kilpatrick

Question Number : 71 Question Id : 764692971 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

These are part of the continuous comprehensive evaluation in the frame work of Telangana state:

Options :

1. ✖ Diagnostic evaluation and Prognostic evaluation

2. ✖ Formative evaluation and Diagnostic evaluation

3.

✖ Summative evaluation and Diagnostic evaluation

4. ✔ Formative evaluation and Summative evaluation

Question Number : 72 Question Id : 764692972 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If an evaluation is conducted by taking into consideration the cognitive, emotional and psychomotor domains, then it is:

Options :

1. ✖ Diagnostic evaluation

2. ✖ Continuous evaluation

3. ✔ Comprehensive evaluation

4. ✖ Informative evaluation

Question Number : 73 Question Id : 764692973 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If a test is administered several times but its score value does not change, then the test has this characteristic:

Options :

1.

✔ Reliability

2. ✖ Validity

3. ✖ Objectivity

4. ✖ Practicability

Question Number : 74 Question Id : 764692974 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following are the least time-consuming, orally calculated and thinking questions?

Options :

1. ✔ Objective-type questions

2. ✖ Very short answer-type questions

3. ✖ Short answer type questions

4. ✖ Essay-type questions

Question Number : 75 Question Id : 764692975 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the advantages of a mathematical '*portfolio*' from the following:

A) Preparing the student for problem-solving.

B) Developing mathematical competencies in students.

C) Developing data collection, information collection and organisation skills.

D) Knowledge acquisition takes place in many ways.

Options :

1. ✖ Only A and B

2. ✖ Only A, B and C

3. ✖ Only A, C and D

4. ✔ A, B, C and D

Question Number : 76 Question Id : 764692976 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Read the following pairs related to the topics of "assessment and evaluation":

A) The process of providing feedback for the purpose of evaluation of learning outcomes and future performance: Assessment

B) The process of making a value judgement: Evaluation

C) The assessment about the worth of a student's performance: Evaluation

D) The process of obtaining and documenting the information about the subject, skills, attitudes and beliefs of the learners: Evaluation

Choose the correct pairs/answer:

Options :

1. ✖ Only A and B

2. ✔ Only A, B and C

3. ✖ Only A, C and D

4. ✖ A, B, C and D

Question Number : 77 Question Id : 764692977 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

A mathematics teacher has designed an item that "student show interest in solving problems: Very high, High, Moderate, Low, Very low". The tool of assessment used is:

Options :

1. ✖ Anecdotal Record

2. ✖ Checklist

3. ✔ Rating Scale

4. ✖ Rubric

Question Number : 78 Question Id : 764692978 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the advantages of "open-ended questions" among the following:

A) Promote divergent thinking in the learner.

B) Promote creativity in the learner.

C) Promote higher-order thinking skills in the learner.

D) Promote rote learning and unnecessary memorisation in the learner.

Options :

1. ✖ Only A and B

2. ✖ Only C and D

3. ✔ Only A, B and C

4. ✖ A, B, C and D

Question Number : 79 Question Id : 764692979 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Observe the following question designed by a mathematics teacher:

"Which of the following operation is not defined for the real numbers?"

a) $8 + 0$ b) $\frac{8}{0}$ c) 8×0 d) $0 - 8$ e) $\frac{0}{0}$

Which ability is assessed by designing the above question?

Options :

1. ✔ Conceptual knowledge

2. ✖ Applying the concept

3. ✖ Analysing the concept

4. ✖ Creating the concept

Question Number : 80 Question Id : 764692980 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the "reasons why students lag behind in mathematics" from the following:

A) Phobia towards Mathematics

B) Lack of pre concepts

C) Focusing on individual differences in teaching and learning

D) Teaching is not happening from concrete to abstract.

Options :

1. ✖ Only A and B

2. ✖ Only C and D

3. ✔ Only A, B and D

4. ✖ A, B, C and D

Question Number : 81 Question Id : 764692981 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Which of the following are the "objectives of identifying gifted children in mathematics"?

A) To explore and encourage the mathematical talent in them.

B) Encouraging them to contribute to the economic condition and development of the country.

C) Encouraging them to participate in various mathematical talent search examinations.

D) To bring out the scientific attitude in them and help them to become good scientists in future.

Options :

1. ✖ Only A and B

2. ✖ Only B and D

3. ✖ Only A, B and C

4. ✔ A, B, C and D

Question Number : 82 Question Id : 764692982 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the reasons why some students are "unable to solve mathematical problems with speed and accuracy" from the following:

A) Having inadequate calculation skills.

B) Being able to analyze the problem properly.

C) Not knowing the method of verifying the answer.

D) Improper use of mathematical symbols and signs in problem solving.

Options :

1. ✖ Only A and B

2. ✖ Only B and D

3. ✔ Only A, C and D

4. ✖ A, B, C and D

Question Number : 83 Question Id : 764692983 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the ways by which Mathematics can be learned "informally" in everyday life by students from the following:

A) From the inheritance of rituals, culture and traditions where mathematics is involved.

B) Through use of mathematics in local environment

C) According to specially designed curriculum

D) By imitating and observing others

Options :

1. ✖ Only A and B

2. ✔ Only A, B and D

3. ✖ Only A, C and D

4. ✖ A, B, C and D

Question Number : 84 Question Id : 764692984 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

The interest of the students who are lagging behind in mathematics due to dislike of the subject can be improved by:

Options :

1. ✖ Treating medically

2. ✖ Changing the school

3. ✖ Making parents conscious of their duty

4. ✔ Undertaking innovative teaching and positive reinforcement by the teacher

Question Number : 85 Question Id : 764692985 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the reasons why a peer group facilitates learning from the following:

A) The peer group not only observes the learner but also gives feedback.

B) The peer group gives suggestions to the learner for improvement.

C) The peer group shares some novel ideas and experiences.

D) Learner feels free to interact with peers than with the teacher.

Choose the correct answer:

Options :

1. ✖ Only A and B

2. ✖ Only B, C and D

3. ✖ Only A, C and D

4. ✔ A, B, C and D

Question Number : 86 Question Id : 764692986 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

For which of the following activity the teacher does not need extra materials like reference books, manuals, etc. other than a mathematics textbook?

Options :

1. ✔ Satisfying the needs of average students

2. ✖ Giving varied individual assignments

3. ✖ Conducting co-curricular activities

4. ✖ Giving group projects

Question Number : 87 Question Id : 764692987 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the essential factors that define a student's "readiness" to achieve mathematical competencies from the following:

A) Possessing necessary pre-concepts
B) Having a good classroom with all facilities
C) Having rich learning experiences and opportunities
D) Having a requisite degree of motivation

Options :

1. ✖ Only A and C

2. ✔ Only A, C and D

3. ✖ Only B, C and D

4. ✖ A, B, C and D

Question Number : 88 Question Id : 764692988 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the effective measures for relating mathematics to learners' "real-life situations" among the following:

A) Relating the subject matter to the learner's field of experience.
B) Making learners acquainted with the application of concepts.
C) Adapting the pedagogy upon the product rather than the process.
D) Concretising teaching with help of teaching aids/activities or illustrative examples.

Options :

1. ✖ Only A and C

2. ✔ Only A, B and D

3. ✖ Only B, C and D

4. ✖ A, B, C and D

Question Number : 89 Question Id : 764692989 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the actions that a positive classroom environment requires for both teachers and student's active role from the following:

A) Problem solving
B) Questioning
C) Listening
D) Clarifying
E) Problem posing

Options :

1. ✖ Only A, B and C

2. ✖ Only A, B, C and D

3. ✖ Only B, C, D and E

4. ✔ A, B, C, D and E

Question Number : 90 Question Id : 764692990 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If a student is able to compare properties, functions, procedures, etc., then the student has achieved this objective.

Options :

1. ✖ Knowledge

2. ✔ Understanding

3. ✖ Application

4. ✖ Skills

Question Number : 91 Question Id : 764692991 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

If a student is able to simplify problems by selecting the appropriate laws or various combination of laws then the student has achieved this objective.

Options :

1. ✖ Knowledge

2. ✖ Understanding

3. ✔ Application

4. ✖ Skills

Question Number : 92 Question Id : 764692992 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the advantages of the spiral approach in organizing the mathematics curriculum from the following:

A) It provides sufficient motivation for the students.

B) It provides opportunities for the revision of the fundamental concepts related to the concerned topic.

C) It provides opportunities to relate a topic with other topics.

D) It helps to learn new concepts not connected to those learnt in previous classes.

Options :

1. ✔ Only A, B and C

2. ✖ Only A, B and D

3. ✖ Only B, C and D

4. ✖ A, B, C and D

Question Number : 93 Question Id : 764692993 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the criteria for framing good learning experiences/activities in a mathematics classroom among the following:

A) Should be based on the specific objectives to be attained.

B) Should meet the needs of the particular age group of pupils.

C) Should be closely related to the local environment of the students.

D) Should be prepared by taking into account teacher's personal background.

Options :

1. ✔ Only A, B and C

2. ✖ Only A, B and D

3. ✖ Only B, C and D

4. ✖ A, B, C and D

Question Number : 94 Question Id : 764692994 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

The purpose of a "mathematics laboratory" among the following is:

Options :

1. ✖ To arrange mathematical excursions and visits.

2. ✖ To come in contact with extra-curricular literature on mathematics.

3. ✖ To sell amazing mathematical figures, charts, games, puzzles, and models.

4. ✔ To enable the students to perform certain experiments with concrete objects.

Question Number : 95 Question Id : 764692995 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum

Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify an activity from the following that can be organized in a "mathematics club" :

A) Arranging seminars, career courses and competitions in mathematics.

B) Arranging meetings to discuss important issues relating to mathematics.

C) Enabling the students to do certain projects under the proper guidance of the teacher.

Options :

1. ✔ Only A and C

2. ✖ Only A and B

3. ✖ Only B and C

4. ✖ A, B and C

Question Number : 96 Question Id : 764692996 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the objectives of organizing "summer programmes in mathematics" from the following:

A) Minimising the gap that originated in the learning of different learners in the formal system.

B) Providing opportunities for improving the learning of the students.

C) Utilising leisure time of summer vacations of students for learning activities.

D) Providing opportunities to teachers to prepare their teaching plans.

Options :

1. ✔ Only A, B and C

2. ✖ Only A, C and D

3. ✖ Only B, C and D

4. ✖ A, B, C and D

Question Number : 97 Question Id : 764692997 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Read the following pairs related to the "non-formal agencies of learning mathematics":

A) Place of learning from parents, older brother/sister: Home

B) A group where learning takes place by playing games and discussing many topics: Peers

C) Place where learning takes place through teaching by a teacher following a specific curriculum: School

D) Group where learning takes place by interacting on different occasions with people doing different kinds of work, traders, artists, etc.: Society

Choose the correct answer:

Options :

1. ✖ Only A and B

2. ✔ Only A, B and D

3. ✖ Only A, C and D

4. ✖ A, B, C and D

Question Number : 98 Question Id : 764692998 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Read the following pairs related to the "pupils' learning approaches and methods":

A) Learning by doing things themself: Self-experience

B) Learning by doing the same as the actions of the family members and different people in the society: Imitation

C) Learning by watching their surroundings: Observation

D) Learning by doing things over and over again: Practice

Choose the correct answer:

Options :

1. ✖ Only A, B and C

2. ✖ Only A, B and D

3. ✖ Only B, C and D

4. ✔ A, B, C and D

Question Number : 99 Question Id : 764692999 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Identify the "student's daily life needs" among the following:

A) Trying to solve a mathematical problem given in the textbook.

B) Going to the market and buying things.

C) Paying for what is bought.

D) How much cloth is required to stitch a shirt?

Options :

1. ✖ Only A, B and C

2. ✖ Only A, C and D

3. ✔ Only B, C and D

4. ✖ A, B, C and D

Question Number : 100 Question Id : 7646921000 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.25

Match the following "problems in learning mathematics" with "the suggestions given to overcome them".

A)	Low memory	i)	Making students to solve simple problems initially, later big problems in gradual manner.
B)	Poor language skills	ii)	Providing concrete experiences.
C)	Less attention	iii)	Use of activities and mathematical games while teaching.
D)	Poor comprehension skills	iv)	Connecting mathematical language with the common language they know.

Options :

1. ✖ A-iv, B-i, C-ii, D-iii

2. ✔ A-iii, B-iv, C-i, D-ii

3. ✖ A-iv, B-iii, C-ii, D-i

4. ✖ A-ii, B-iii, C-iv, D-i