Oriental Education Society's
Oriental College of Education & Research, Andheri (W)
Affiliated to University of Mumbai
EC 1 – Pedagogy of school subject: Mathematics

Q.1 Choose the correct option:

1) According to Locke," Mathematics is a way to settle in the mind a habit of..... ".

a) Thinking
b) Reasoning
c) Behaving
d) Observing

2) Mathematics is not considered as a significant tool, used for ……..

a) solving business problems
b) scientific problems
c) economic problems.
d) social problem

3) A good ..... of mathematics provide the content of mathematics.

a) Text book
b) Syllabus
c) Reference book
d) Guide

4) ..... is considered the father of mathematics because of his notable inventions in mathematics and science.

a) Aryabhatta
b) Archimedes

c) Euclid
d) phythagoras

5) "The ..... is a tool in the hands of artist (teacher) to mould his material (pupils) according to his ideals (objectives) in his studio (school)"-Cunningham.

a) Syllabus
b) Textbooks
c) Curriculum
d) Guide

6) Mathematics is the science of…… and space·

a) Quality
b) Quantity
c) Magnitude
d) Unite

7) ..... introduced the concept of ' sine ' in trigonometry.

a) Aryabhatta
b) Brahmagupta
c) Euclid
d) Pythagoras

8) …… are the values that indicate human's responsibilities about mathematics education for other people .

a) practical values,
b) intellectual values,
c) social values,
d) moral values

9) Any person who is ignorant of mathematics can be easily cheated , is the example of ……. Of Mathematics.

a) Practical values,
b) Utilitarian Value
c) Social values,
d) Moral values

10) The Study of mathematics develops all our ..... powers like concentration, precision, originality, observation, innovation, etc.

a) intellectual
b) aesthetic
c) moral
d) disciplinary

11) …….. is a maxim that throws light on previous and acquired knowledge that the students might have·

a) From Concrete to Abstract. ...
b) From Particular to General. ...
c) From Whole to Part. ...
d) From Known to unknown

12) ……. of teaching refers to the techniques of teaching used by the teacher.

a) Maxims
b) Theorems
c) Postulates
d) Axioms

13) In ..... pupil works like a researcher and solve the problem.

a) Deductive
b) Inductive
c) Heuristic method
d) synthetic

14) …….. method involves the breaking up of a topic into suitable portions

a) topical
b) Concentric
c) vertical
d) horizontal

15) In ..... method teacher proceeds from specific examples to general formula.

a) Deductive
b) Inductive
c) Analytic
d) Lecture

16) …….. is based on the principal that any topic when begun should not be left half done·

a) Topical
b) Concentric
c) Vertical
d) Horizontal

17) …… is crucial for helping your students reach their learning objectives.

a) Objective planning
b) Curriculum planning
c) Lesson planning
d) Strategy planning

18) A lesson plan is the instructor's …….. of what students need to learn.

a) Concept map
b) Mind map
c) Road map
d) Physical map

19) ……, related to the curriculum plan, is what a teacher plans for a content area to achieve the learning goals, assessments and instruction.

a) A lesson plan
b) A question plan
c) A activity plan
d) A unit plan

20) In ..... method, teacher places together things that are apart or to join separate parts.

a) Deductive
b) Inductive
c) Analytic
d) synthetic

21) …….. sets out your goals and pacing for specific “slices” of the school year·

a) A lesson plan
b) A question plan
c) A activity plan
d) A unit plan

22) In …… method, first of all the rules is given and then students are asked to apply these rules to solve more problems.

a) Deductive
b) Inductive
c) Analytic
d) synthetic

23) …… reasoning is the process of arriving at a conclusion based on a set of observations·

a) Deductive
b) Inductive
c) Analytic
d) synthetic

24) Inductive reasoning is reasoning based on a set of observations, while deductive reasoning is reasoning based on……...

a) facts
b) reasons
c) methods
d) activities

25) An evaluation programme that will be carried out by a mathematics teacher for finding the nature and extent of the learning difficulties and behavioural problems of pupils, is called.....

a) Remedial teaching
b) Diagnostic testing
c) Evaluation
d) Assessment

26) The mathematics laboratory is a place where anybody can experiment and explore teaching and learning material.

a) Club
b) laboratory
c) Geogebra
d) Virtual Manipulatives

27) Maths ……..are dedicated extra-curricular maths get-togethers that breathe new life into maths beyond the classroom.

a) Club
b) laboratory
c) Geogebra
d) Virtual Manipulatives

28) Geogebra has all of the standard Geometry software functions.

a) Club
b) laboratory
c) Geogebra
d) Virtual Manipulatives

29) The most common …….. used were geoboards, pattern blocks, tangrams, and base-10 blocks.

a) Club
b) laboratory
c) Geogebra
d) Virtual Manipulatives

30) Math ..... in our school helps in arousing and maintaining interest in mathematics.

a) Lab
b) Club
c) Game
d) Quiz

Answer Key

Q.no.	Ans.	Q.no.	Ans.	Q.no.	Ans.
1	b	11	d	21	d
2	d	12	a	22	a
3	a	13	c	23	b
4	a	14	b	24	a
5	c	15	b	25	b
6	b	16	a	26	b
7	a	17	c	27	a
8	c	18	c	28	c
9	b	19	d	29	d
10	a	20	d	30	b

Short Answer Questions

Q. 2 Write the short answers.

1) Write the Steps of Inductive Method.
2) Explain the relationship between academic disciplines and Mathematics.
3) Explain the nature and scope of Mathematics.
4) Explain the Concentric approach of curriculum construction
5) Explain the steps of Problem Solving method
6) Explain the significance of Mathematics Club.
7) Write the advantages of Geogebra as a digital Resource for teaching Mathematics.
8) Explain the maxim with example - ' From Concrete to abstract'
9) Explain the need and avenues of Continuous Professional Development of Mathematics Teacher.
10)Write the Contribution of Mathematician- Ramanujan.