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## **Unit-1: Mathematics at Upper Primary Stage**

*(Nature, Aims, Objectives, Mathematical Language, Patterns)*

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### **Nature of Mathematics (MCQ 1–40)**

1. Mathematics is primarily a subject of
  - A. Memorization
  - B. Guesswork
  - C. Logical reasoning**
  - D. Opinion
2. Mathematics develops the ability to think
  - A. Emotionally
  - B. Randomly
  - C. Logically**
  - D. Negatively
3. Mathematics is called a systematic science because it is based on
  - A. Feelings
  - B. Assumptions
  - C. Logical structure**
  - D. Stories
4. Mathematical concepts are mostly
  - A. Concrete
  - B. Emotional
  - C. Abstract**
  - D. Imaginative
5. The abstract nature of mathematics means
  - A. It is confusing
  - B. It is unrelated to life
  - C. It deals with symbols and ideas**
  - D. It is boring
6. Mathematics helps in recognizing
  - A. Emotions
  - B. Colors
  - C. Patterns and relationships**
  - D. Stories
7. Mathematics is independent of
  - A. Logic
  - B. Reasoning
  - C. Language barriers**
  - D. Symbols
8. The beauty of mathematics lies in its
  - A. Lengthy calculations
  - B. Complexity
  - C. Precision and accuracy**
  - D. Memorization
9. Mathematics is cumulative because
  - A. Topics are unrelated
  - B. Each concept builds on previous ones**
  - C. It is repetitive
  - D. It is flexible
10. Mathematics is considered a universal language because
  - A. It uses English
  - B. Symbols are same everywhere**
  - C. It uses numbers only
  - D. It is easy
11. The logical nature of mathematics helps learners to
  - A. Guess answers
  - B. Draw valid conclusions**
  - C. Memorize facts
  - D. Avoid reasoning
12. Mathematics differs from other subjects because it is
  - A. Descriptive

B. Emotional  
**C. Exact and precise**  
D. Opinion-based

13. Mathematical thinking mainly involves  
A. Imagination  
B. Guessing  
**C. Reasoning and proof**  
D. Memorization

14. Mathematics develops  
A. Language skill  
B. Emotional intelligence  
**C. Problem-solving ability**  
D. Artistic skill

15. Mathematics is a science of  
A. Experiments  
B. Nature  
**C. Numbers and relations**  
D. Living beings

16. Mathematical proofs are based on  
A. Opinion  
B. Belief  
**C. Logical arguments**  
D. Observation

17. The symbolic nature of mathematics helps in  
A. Confusion  
B. Memorization  
**C. Quick communication**  
D. Storytelling

18. Mathematics is value-neutral because  
A. It has emotions  
**B. It is free from bias**  
C. It depends on culture  
D. It is opinionated

19. Mathematical ideas are represented by  
A. Pictures only  
B. Words only  
**C. Symbols and signs**  
D. Stories

20. Mathematics trains the mind to think  
A. Vaguely  
B. Emotionally  
**C. Precisely**  
D. Randomly

21. Mathematics is both  
A. Concrete and emotional  
**B. Abstract and concrete**  
C. Emotional and social  
D. Linguistic and moral

22. The subject of mathematics encourages  
A. Blind belief  
B. Guesswork  
**C. Rational thinking**  
D. Imitation

23. Mathematics mainly deals with  
A. Facts only  
**B. Structures and patterns**  
C. Opinions  
D. Narratives

24. Mathematics is exact because  
A. It changes with time  
**B. Results are definite**  
C. It depends on interpretation  
D. It is flexible

25. Mathematics promotes  
A. Creativity without rules  
**B. Discipline of mind**  
C. Emotional growth  
D. Storytelling

26. The logical sequence in mathematics is called

- A. Guessing
- B. Randomness
- C. Systematic arrangement**
- D. Memorization

27. Mathematics is free from ambiguity because

- A. It is lengthy
- B. Symbols have fixed meaning**
- C. It uses language
- D. It is abstract

28. Mathematical language is mostly

- A. Narrative
- B. Descriptive
- C. Symbolic**
- D. Emotional

29. Mathematics sharpens

- A. Memory only
- B. Imagination only
- C. Reasoning power**
- D. Emotional skill

30. Mathematics is a tool for

- A. Entertainment
- B. Storytelling
- C. Scientific thinking**
- D. Moral teaching

31. Mathematics concepts are

- A. Opinion-based
- B. Universally accepted**
- C. Region-based
- D. Culture-specific

32. Mathematics is cumulative because

- A. Topics repeat
- B. Learning is hierarchical**
- C. It is easy
- D. It is optional

33. Mathematics encourages

- A. Superstition
- B. Blind faith
- C. Critical thinking**
- D. Imitation

34. Mathematics is independent of

- A. Logic
- B. Symbols
- C. Culture and religion**
- D. Reasoning

35. Mathematics teaches students to be

- A. Emotional
- B. Confused
- C. Precise and accurate**
- D. Casual

36. The abstract nature of mathematics makes it

- A. Useless
- B. Generalized**
- C. Emotional
- D. Difficult always

37. Mathematics deals with

- A. Stories
- B. Emotions
- C. Quantitative relationships**
- D. Opinions

38. Mathematical reasoning avoids

- A. Logic
- B. Proof
- C. Guesswork**
- D. Symbols

39. Mathematics is systematic because

- A. It has many formulas
- B. Concepts are logically arranged**
- C. It is difficult
- D. It is abstract

40. Mathematics helps in developing

- A. Moral values
- B. Emotional values
- C. Intellectual discipline**
- D. Spiritual values

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**Aims & Objectives of Teaching Mathematics (MCQ 41–120)**

41. The main aim of teaching mathematics is to develop

- A. Rote learning
- B. Logical thinking**
- C. Memorization
- D. Fear

42. Mathematics education helps learners to

- A. Avoid problems
- B. Solve real-life problems**
- C. Memorize tables
- D. Copy solutions

43. One important aim of mathematics teaching is

- A. Entertainment
- B. Accuracy**
- C. Guessing
- D. Speed only

44. Teaching mathematics helps in developing

- A. Emotional intelligence
- B. Reasoning power**
- C. Artistic skills
- D. Moral values

45. Mathematics teaching aims to develop

- A. Blind faith
- B. Scientific attitude**

46. One objective of mathematics teaching is

- A. Fear reduction only
- B. Conceptual understanding**
- C. Memorization only
- D. Speed calculation only

47. Mathematics education encourages

- A. Passiveness
- B. Active participation**
- C. Rote learning
- D. Dependence

48. Teaching mathematics helps students to

- A. Avoid logic
- B. Think independently**
- C. Depend on others
- D. Guess answers

49. An important aim of mathematics teaching is

- A. Examination success only
- B. Problem-solving ability**
- C. Memorization
- D. Speed writing

50. Mathematics teaching develops

- A. Emotional thinking
- B. Analytical ability**
- C. Blind faith
- D. Confusion

51. One objective of mathematics teaching is

- A. Learning formulas only
- B. Application of knowledge**
- C. Memorization
- D. Guessing

52. Mathematics helps in developing

- A. Physical strength
- B. Mental discipline**
- C. Emotional growth
- D. Artistic skill

53. Teaching mathematics prepares students for

- A. Story writing
- B. Daily life situations**
- C. Emotional decisions
- D. Moral debates

54. Mathematics teaching aims to develop

- A. Fear of numbers
- B. Confidence in calculations**
- C. Dependence
- D. Guesswork

55. Mathematics education develops

- A. Imagination only
- B. Accuracy and precision**
- C. Emotions
- D. Memory only

56. Teaching mathematics helps in

- A. Superstition
- B. Logical reasoning**
- C. Emotional expression
- D. Guessing

57. One objective of mathematics teaching is to

- A. Confuse students
- B. Develop numerical ability**
- C. Increase fear
- D. Promote memorization

58. Mathematics teaching aims at

- A. Speed only
- B. Understanding concepts**
- C. Copying solutions
- D. Guessing

59. Teaching mathematics develops

- A. Creativity without logic
- B. Problem-solving skills**
- C. Blind belief
- D. Emotional thinking

60. Mathematics education helps learners to

- A. Avoid calculations
- B. Make decisions logically**
- C. Depend on others
- D. Memorize rules

61. The aim of mathematics teaching includes

- A. Fear creation
- B. Intellectual development**
- C. Confusion
- D. Emotional dependency

62. Mathematics teaching encourages

- A. Passive listening
- B. Active learning**
- C. Rote memory
- D. Blind following

63. Teaching mathematics helps in developing

- A. Moral reasoning
- B. Analytical thinking**
- C. Emotional reasoning
- D. Guessing

64. Mathematics teaching aims to develop

- A. Exam fear
- B. Logical habits of mind**
- C. Confusion
- D. Emotional bias

65. Mathematics teaching helps students to

- A. Depend on calculators only
- B. Develop accuracy**

C. Guess answers  
D. Avoid reasoning

66. Mathematics education develops

- A. Artistic sense
- B. Numerical literacy**
- C. Emotional skill
- D. Storytelling

67. One objective of mathematics teaching is

- A. Learning by rote
- B. Skill in calculation**
- C. Guessing
- D. Avoiding problems

68. Teaching mathematics helps in

- A. Emotional stability
- B. Clear thinking**
- C. Confusion
- D. Blind faith

69. Mathematics teaching aims at

- A. Teaching tricks only
- B. Developing reasoning ability**
- C. Memorization
- D. Guessing

70. Mathematics education prepares students for

- A. Storytelling
- B. Higher learning**
- C. Emotional debates
- D. Moral preaching

71. Mathematics teaching helps develop

- A. Confusion
- B. Accuracy in work**
- C. Emotional bias
- D. Guessing

72. Mathematics education aims to

- A. Promote fear

B. **Build confidence**  
C. Create anxiety  
D. Confuse learners

73. Teaching mathematics develops

- A. Emotional thinking
- B. Critical thinking**
- C. Blind belief
- D. Guessing

74. Mathematics teaching helps students to

- A. Avoid challenges
- B. Face problems logically**
- C. Depend on others
- D. Memorize formulas

75. Mathematics education aims at

- A. Rote learning
- B. Conceptual clarity**
- C. Guessing
- D. Fear

76. Teaching mathematics develops

- A. Artistic ability
- B. Scientific temper**
- C. Emotional bias
- D. Moral reasoning

77. Mathematics teaching helps in

- A. Guessing
- B. Decision-making**
- C. Emotional response
- D. Storytelling

78. Mathematics education aims to develop

- A. Confusion
- B. Self-reliance**
- C. Blind faith
- D. Emotional thinking

79. Teaching mathematics helps in

- A. Avoiding logic

B. **Understanding patterns**  
C. Memorization only  
D. Guessing

80. Mathematics teaching aims at  
A. Mechanical learning  
B. **Problem-solving approach**  
C. Emotional learning  
D. Guessing

81. Mathematics teaching helps students to  
A. Depend on memorization  
B. Avoid reasoning  
C. **Develop logical habits**  
D. Guess answers

82. An important objective of mathematics teaching is to  
A. Teach shortcuts only  
B. **Develop accuracy and speed**  
C. Promote rote learning  
D. Increase anxiety

83. Mathematics education helps in  
A. Emotional development only  
B. **Clear and systematic thinking**  
C. Guesswork  
D. Blind belief

84. Teaching mathematics at upper primary stage should aim at  
A. Mechanical calculation  
B. **Conceptual understanding**  
C. Memorization of formulas  
D. Examination fear

85. Mathematics teaching helps learners to  
A. Avoid challenges  
B. **Solve unfamiliar problems**  
C. Memorize answers  
D. Copy solutions

86. The aim of mathematics teaching is to develop  
A. Superstition  
B. **Rational thinking**  
C. Emotional thinking  
D. Blind faith

87. Mathematics education develops  
A. Storytelling skill  
B. **Numerical competence**  
C. Emotional intelligence  
D. Artistic sense

88. Teaching mathematics encourages  
A. Passive learning  
B. **Independent thinking**  
C. Guessing  
D. Rote memorization

89. One objective of mathematics teaching is  
A. Fear creation  
B. **Application of mathematics in daily life**  
C. Confusion  
D. Memorization only

90. Mathematics teaching aims to develop  
A. Casual attitude  
B. **Precision in work**  
C. Emotional bias  
D. Guessing habit

91. Mathematics education helps in developing  
A. Moral values  
B. **Problem-solving attitude**  
C. Emotional values  
D. Linguistic ability

92. Teaching mathematics develops  
A. Blind obedience  
B. **Logical sequence of thought**

C. Emotional thinking  
D. Guessing

93. Mathematics teaching at upper primary level should focus on  
A. Speed only  
**B. Understanding concepts and processes**  
C. Memorization only  
D. Tricks and shortcuts

94. Mathematics education helps students to  
A. Avoid logical thinking  
**B. Analyze situations**  
C. Depend on teachers  
D. Guess answers

95. Mathematics teaching aims at developing  
A. Mechanical skills  
**B. Critical and creative thinking**  
C. Emotional response  
D. Guessing ability

96. One important aim of teaching mathematics is  
A. To create fear  
**B. To make learners confident**  
C. To confuse students  
D. To promote rote learning

97. Mathematics education develops  
A. Emotional discipline  
**B. Intellectual discipline**  
C. Moral discipline  
D. Physical discipline

98. Teaching mathematics helps learners to  
A. Avoid calculations  
**B. Draw logical conclusions**  
C. Memorize rules only  
D. Guess results

99. Mathematics teaching encourages  
A. Superstitious thinking  
**B. Scientific outlook**  
C. Emotional dependence  
D. Blind belief

100. Mathematics education aims to  
A. Teach tricks only  
**B. Develop understanding of structures**  
C. Promote memorization  
D. Increase anxiety

101. Teaching mathematics helps students to  
A. Depend on calculators  
**B. Develop reasoning ability**  
C. Avoid logic  
D. Guess answers

102. Mathematics teaching aims at  
A. Examination success only  
**B. Overall mental development**  
C. Speed writing  
D. Memorization

103. Mathematics education helps learners to  
A. Avoid abstraction  
**B. Understand abstract ideas**  
C. Depend on examples only  
D. Guess concepts

104. Teaching mathematics develops  
A. Emotional reactions  
**B. Analytical power**  
C. Blind imitation  
D. Guessing

105. Mathematics teaching helps in developing

- A. Casual attitude
- B. Accuracy and neatness**
- C. Emotional bias
- D. Confusion

106. Mathematics education aims to

- A. Create fear of numbers
- B. Remove fear of mathematics**
- C. Promote rote learning
- D. Encourage guessing

107. Teaching mathematics helps students to

- A. Avoid reasoning
- B. Think systematically**
- C. Depend on others
- D. Guess answers

108. Mathematics teaching develops

- A. Artistic thinking
- B. Logical and critical thinking**
- C. Emotional thinking
- D. Blind belief

109. Mathematics education helps in

- A. Memorizing rules
- B. Understanding relationships**
- C. Guessing answers
- D. Copying solutions

110. Teaching mathematics aims at

- A. Learning formulas by heart
- B. Developing problem-solving skills**
- C. Guessing techniques
- D. Avoiding challenges

111. Mathematics education develops

- A. Emotional intelligence
- B. Numerical reasoning**
- C. Moral values
- D. Linguistic skill

112. Teaching mathematics helps learners to

- A. Avoid abstraction
- B. Generalize concepts**
- C. Memorize steps only
- D. Guess outcomes

113. Mathematics teaching aims to develop

- A. Confusion
- B. Clarity of thought**
- C. Emotional bias
- D. Guessing

114. Mathematics education encourages

- A. Rote memorization
- B. Logical explanation**
- C. Blind imitation
- D. Guessing

115. Teaching mathematics helps in

- A. Emotional expression
- B. Developing accuracy in calculation**
- C. Confusion
- D. Guessing

116. Mathematics education aims at

- A. Teaching mechanical skills only
- B. Developing reasoning and logic**
- C. Memorization
- D. Fear creation

117. Teaching mathematics helps students to

- A. Avoid proofs
- B. Understand mathematical**

**language**

- C. Depend on others
- D. Guess meanings

118. Mathematics teaching

develops

- A. Casual thinking
- B. Orderly thinking**
- C. Emotional thinking
- D. Guessing

119. Mathematics education

helps in

- A. Superstition
- B. Logical decision-making**
- C. Blind faith
- D. Guesswork

120. The ultimate aim of

teaching mathematics is

- A. Examination success
- B. Speed in calculation
- C. Development of logical and rational thinking**
- D. Memorization of formulas

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## UNIT-2 MCQs

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### Teaching Methods: Induction, Deduction, Analysis & Synthesis (1-70)

#### Inductive Method

1. Inductive method proceeds from
  - A. General to particular
  - B. Rule to example
  - C. Particular to general**
  - D. Formula to problem
2. Inductive method is based on
  - A. Memorization
  - B. Guesswork
  - C. Observation and reasoning**
  - D. Drill
3. In inductive method, students first learn
  - A. Definitions
  - B. Theorems
  - C. Examples**
  - D. Formulae
4. Inductive method encourages
  - A. Passive learning
  - B. Discovery learning**
  - C. Rote learning
  - D. Mechanical learning
5. Inductive method is suitable for
  - A. Memorizing rules
  - B. Introducing new concepts**
  - C. Speed calculation
  - D. Revision work
6. Inductive method promotes
  - A. Blind belief
  - B. Logical thinking**
  - C. Guessing
  - D. Dependence

7. In inductive method, teacher's role is
  - A. Dominant
  - B. Authoritative
  - C. Guide and facilitator**
  - D. Lecturer
8. Inductive method is learner-centred because
  - A. Teacher explains rules
  - B. Learners derive rules**
  - C. Textbook dominates
  - D. Drill dominates
9. The inductive method develops
  - A. Memory
  - B. Reasoning ability**
  - C. Speed
  - D. Writing skill
10. A major limitation of inductive method is
  - A. Promotes logic
  - B. Time consuming**
  - C. Learner involvement
  - D. Concept clarity

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#### Deductive Method

11. Deductive method proceeds from
  - A. Particular to general
  - B. Example to rule
  - C. General to particular**
  - D. Observation to rule
12. Deductive method starts with
  - A. Examples
  - B. Activities
  - C. Rule or formula**
  - D. Experiment
13. Deductive method is mainly teacher-centred because

A. Learners discover  
**B. Teacher explains first**  
C. Students explore  
D. Activities dominate

14. Deductive method is useful for  
A. Discovering new concepts  
**B. Practice and revision**  
C. Introducing topics  
D. Exploration

15. Deductive method saves  
A. Effort  
B. Energy  
**C. Time**  
D. Resources

16. Deductive method emphasizes  
A. Discovery  
B. Exploration  
**C. Application of rules**  
D. Observation

17. Deductive method is best suited for  
A. Lower primary  
**B. Higher classes**  
C. Beginners  
D. Concept formation

18. Deductive method encourages  
A. Reasoning  
**B. Rote learning**  
C. Discovery  
D. Creativity

19. In deductive method, examples are used to  
A. Discover rules  
**B. Verify rules**  
C. Guess rules  
D. Replace rules

20. A drawback of deductive method is  
A. Saves time  
B. Easy to use  
**C. Less learner participation**  
D. Suitable for exams

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**Analytic Method**

21. Analytic method involves  
A. Guessing  
B. Memorization  
**C. Breaking a problem into parts**  
D. Random steps

22. Analysis proceeds from  
A. Known to unknown  
**B. Unknown to known**  
C. General to particular  
D. Simple to complex

23. Analytic method is helpful in  
A. Storytelling  
**B. Problem solving**  
C. Memorization  
D. Drill

24. Analytic method develops  
A. Emotional thinking  
**B. Logical reasoning**  
C. Guessing habit  
D. Blind belief

25. In analysis, teacher emphasizes  
A. Final answer  
**B. Process of solution**  
C. Speed  
D. Memory

26. Analytic method helps students to  
A. Memorize steps  
**B. Understand reasoning**  
C. Guess results  
D. Copy solutions

27. Analysis method is mainly used in

- A. Arithmetic only
- B. Geometry only
- C. **Algebra and problem solving**
- D. Tables

28. Analytic method trains students to think

- A. Randomly
- B. Emotionally
- C. **Step by step**
- D. Casually

29. A limitation of analytic method is

- A. Logical
- B. Clear
- C. **Lengthy process**
- D. Accurate

30. Analytic method is best for

- A. Drill work
- B. **Understanding concepts deeply**
- C. Speed tests
- D. Memorization

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31. Synthetic method proceeds from

- A. Unknown to known
- B. **Known to unknown**
- C. Complex to simple
- D. Whole to parts

32. Synthesis means

- A. Breaking down
- B. **Combining parts**
- C. Guessing
- D. Memorizing

33. Synthetic method is useful for

- A. Understanding logic
- B. **Presenting final solution**

34. Synthetic method emphasizes

- A. Reasoning
- B. **Result and presentation**
- C. Process
- D. Analysis

35. Synthetic method is quicker because

- A. Steps are skipped
- B. **Direct approach is used**
- C. Guessing is done
- D. Memorization occurs

36. Synthetic method is suitable for

- A. Beginners
- B. **Revision and practice**
- C. Discovery learning
- D. Exploration

37. Synthetic method encourages

- A. Logical reasoning
- B. **Mechanical learning**
- C. Discovery
- D. Exploration

38. Synthetic method is often used in

- A. Exploration
- B. **Examinations**
- C. Concept formation
- D. Activities

39. A drawback of synthetic method is

- A. Saves time
- B. Clear presentation
- C. **Lack of reasoning development**
- D. Easy evaluation

40. Best teaching uses

- A. Only analysis
- B. Only synthesis

### Synthetic Method

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40. Best teaching uses

- A. Only analysis
- B. Only synthesis

- C. Both analysis and synthesis
- D. Memorization

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## Approaches to Teaching Mathematics

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### Constructivist Approach

- 41. Constructivist approach believes that knowledge is
  - A. Transmitted
  - B. Taught
  - C. **Constructed by learner**
  - D. Memorized
- 42. Constructivism emphasizes
  - A. Teacher authority
  - B. **Learner's prior knowledge**
  - C. Rote learning
  - D. Drill
- 43. In constructivist classroom, teacher is a
  - A. Dictator
  - B. Lecturer
  - C. **Facilitator**
  - D. Examiner
- 44. Constructivist approach encourages
  - A. Passive listening
  - B. **Active participation**
  - C. Memorization
  - D. Copying
- 45. Learning in constructivism is
  - A. Mechanical
  - B. **Meaningful**
  - C. Rote
  - D. Accidental
- 46. Constructivist approach focuses on
  - A. Correct answer only
- 47. Constructivism promotes
  - A. Individual isolation
  - B. **Social interaction**
  - C. Teacher dominance
  - D. Silence
- 48. Constructivist learning emphasizes
  - A. Final product
  - B. **Understanding concepts**
  - C. Drill
  - D. Speed
- 49. Constructivist approach is learner-centred because
  - A. Teacher explains
  - B. **Learner constructs meaning**
  - C. Textbook dominates
  - D. Exam dominates
- 50. Constructivism discourages
  - A. Exploration
  - B. **Rote memorization**
  - C. Discussion
  - D. Reasoning

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### Activity-Based Approach

- 51. Activity-based learning emphasizes
  - A. Lecture
  - B. Memorization
  - C. **Learning by doing**
  - D. Drill
- 52. Activity-based approach promotes
  - A. Passive learning
  - B. **Experiential learning**
  - C. Rote learning
  - D. Guessing

53. Activities in mathematics help in

- A. Confusion
- B. Concept clarity**
- C. Guessing
- D. Memorization

54. Activity-based approach develops

- A. Fear
- B. Interest and motivation**
- C. Anxiety
- D. Dependence

55. In activity-based learning, students are

- A. Passive listeners
- B. Active participants**
- C. Silent observers
- D. Note takers

56. Activity-based teaching is suitable for

- A. Rote learning
- B. Upper primary mathematics**
- C. Only exams
- D. Speed drills

57. Activities help learners to

- A. Memorize rules
- B. Discover concepts**
- C. Guess answers
- D. Copy notes

58. Activity-based approach emphasizes

- A. Product
- B. Process**
- C. Speed
- D. Drill

59. Activity-based learning encourages

- A. Individual isolation
- B. Group work**
- C. Silence
- D. Teacher dominance

60. A major advantage of activity-based learning is

- A. Time saving
- B. Joyful learning**
- C. Easy testing
- D. Memorization

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**Constructivist + Activity Based**

61. Both constructivist and activity-based approaches promote

- A. Rote learning
- B. Active learning**
- C. Memorization
- D. Drill

62. These approaches help students to

- A. Fear mathematics
- B. Relate maths to life**
- C. Avoid thinking
- D. Guess answers

63. In these approaches, assessment should be

- A. Only written
- B. Continuous and formative**
- C. Memory-based
- D. Final exam only

64. Learning becomes effective when

- A. Teacher dominates
- B. Learner is engaged**
- C. Memorization increases
- D. Notes are copied

65. These approaches support

- A. Mechanical learning
- B. Conceptual understanding**
- C. Guessing
- D. Rote memory

66. Constructivist and activity-based approaches reduce

- A. Interest
- B. Math anxiety**
- C. Understanding
- D. Participation

67. These approaches encourage

- A. Blind belief
- B. Critical thinking**
- C. Guessing
- D. Imitation

68. Learning through activities helps in

- A. Forgetting
- B. Long-term retention**
- C. Confusion
- D. Anxiety

69. Teacher's role is mainly to

- A. Dictate
- B. Facilitate learning**
- C. Control students
- D. Evaluate only

70. Best learning occurs when

- A. Teacher talks more
- B. Students explore and interact**
- C. Notes are memorized
- D. Exams dominate

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### UNIT-3 MCQs (1–120)

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#### A. Evaluation in Mathematics – Basics (1–30)

1. Evaluation in mathematics mainly aims at
  - A. Ranking students
  - B. Assessing learning outcomes**
  - C. Punishing learners
  - D. Completing syllabus
2. Evaluation is a process of
  - A. Teaching
  - B. Learning
  - C. Judging learning progress**
  - D. Memorization
3. The purpose of evaluation is to
  - A. Create fear
  - B. Improve teaching–learning process**
  - C. Fail students
  - D. Compare students
4. Evaluation should be
  - A. Occasional
  - B. End-based
  - C. Continuous**
  - D. Random
5. Evaluation helps the teacher to
  - A. Ignore weaknesses
  - B. Identify learning gaps**
  - C. Increase workload
  - D. Memorize marks
6. Evaluation in mathematics should focus on
  - A. Speed only
  - B. Understanding and reasoning**
7. Evaluation is closely related to
  - A. Punishment
  - B. Discipline
  - C. Objectives of teaching**
  - D. Homework
8. Good evaluation promotes
  - A. Fear
  - B. Learning improvement**
  - C. Competition only
  - D. Stress
9. Evaluation helps students to
  - A. Feel anxious
  - B. Know their progress**
  - C. Guess answers
  - D. Memorize
10. Evaluation is an integral part of
  - A. Examination only
  - B. Teaching–learning process**
  - C. Discipline
  - D. Homework
11. Evaluation in mathematics should be
  - A. Subjective only
  - B. Objective and comprehensive**
  - C. Random
  - D. Mechanical
12. Evaluation helps in
  - A. Punishing learners
  - B. Curriculum improvement**
  - C. Ignoring errors
  - D. Ranking only
13. Evaluation should be based on
  - A. Teacher's mood
  - B. Pre-determined criteria**

C. Guessing  
D. Bias

14. Evaluation in mathematics must assess  
A. Memory only  
**B. Conceptual understanding**  
C. Writing speed  
D. Neatness only

15. Evaluation is more meaningful when it is  
A. End-term only  
**B. Continuous and comprehensive**  
C. Sudden  
D. Rare

16. Evaluation helps teachers to  
A. Complete syllabus fast  
**B. Modify teaching strategies**  
C. Reduce teaching  
D. Increase homework

17. Evaluation should be learner-centred because  
A. Teacher dominates  
**B. Learner's progress is focused**  
C. Exams dominate  
D. Marks dominate

18. Evaluation measures  
A. Teacher performance only  
**B. Student learning outcomes**  
C. School discipline  
D. Attendance

19. Evaluation should encourage  
A. Fear of failure  
**B. Self-assessment**  
C. Comparison  
D. Competition only

20. Evaluation in mathematics aims to  
A. Memorize formulas

**B. Develop problem-solving ability**  
C. Speed writing  
D. Guessing

21. Evaluation is useful for  
A. Only students  
**B. Both teacher and students**  
C. Administrators only  
D. Parents only

22. Evaluation should be free from  
A. Logic  
**B. Bias**  
C. Criteria  
D. Planning

23. Evaluation helps in identifying  
A. Teacher mistakes only  
**B. Student difficulties**  
C. School rules  
D. Timetable issues

24. Evaluation should motivate students to  
A. Avoid mathematics  
**B. Improve performance**  
C. Fear exams  
D. Depend on others

25. Evaluation is different from examination because  
A. It is shorter  
**B. It is continuous**  
C. It is difficult  
D. It is written only

26. Evaluation should assess  
A. Only final answers  
**B. Process and reasoning**  
C. Speed  
D. Memorization

27. Evaluation in mathematics should be

A. Stressful  
**B. Diagnostic and remedial**  
C. Mechanical  
D. Punitive

28. Evaluation should focus on  
A. Marks only  
**B. Learning outcomes**  
C. Rank only  
D. Competition

29. Evaluation helps in  
A. Ignoring errors  
**B. Identifying strengths and weaknesses**  
C. Increasing fear  
D. Guessing

30. Evaluation should be  
A. One-time  
**B. Ongoing**  
C. Accidental  
D. Optional

C. Interaction  
D. Activities

34. Unit tests and annual exams are examples of  
A. Informal evaluation  
**B. Formal evaluation**  
C. Diagnostic evaluation  
D. Remedial evaluation

35. Informal evaluation is  
A. Rigid  
**B. Flexible**  
C. Examination-based  
D. Stressful

36. Informal evaluation includes  
A. Annual exams  
**B. Observation and interaction**  
C. Final tests  
D. Board exams

37. Informal evaluation helps in  
A. Ranking students  
**B. Understanding day-to-day progress**  
C. Final certification  
D. Promotion

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### **B. Formal and Informal Evaluation (31–60)**

31. Formal evaluation is usually  
A. Continuous  
**B. Planned and structured**  
C. Casual  
D. Unplanned

32. Formal evaluation includes  
A. Observation  
B. Oral questioning  
**C. Written examinations**  
D. Discussion

33. Formal evaluation mainly focuses on  
A. Process  
**B. Product of learning**

38. Questioning during teaching is an example of  
A. Formal evaluation  
**B. Informal evaluation**  
C. Summative evaluation  
D. Terminal evaluation

39. Informal evaluation is mostly  
A. Written  
**B. Oral and observational**  
C. Objective only  
D. Exam-based

40. Formal evaluation is usually  
A. Diagnostic

- B. **Summative**
- C. Remedial
- D. Informal

41. Informal evaluation helps in

- A. Final grading
- B. Immediate feedback**
- C. Certification
- D. Promotion

42. Formal evaluation is conducted

- A. Daily
- B. At fixed intervals**
- C. Randomly
- D. Continuously

43. Informal evaluation reduces

- A. Learning
- B. Math anxiety**
- C. Interaction
- D. Understanding

44. Informal evaluation focuses more on

- A. Marks
- B. Learning process**
- C. Ranking
- D. Comparison

45. Formal evaluation is necessary for

- A. Daily teaching
- B. Certification and promotion**
- C. Diagnosis
- D. Remediation

46. Informal evaluation is helpful in

- A. Ignoring errors
- B. Identifying misconceptions**
- C. Final grading
- D. Ranking

47. Formal evaluation usually uses

- A. Observation
- B. Discussion

- C. **Standardized tests**
- D. Interaction

48. Informal evaluation supports

- A. Rote learning
- B. Continuous learning**
- C. Memorization
- D. Guessing

49. Formal evaluation is mostly

- A. Qualitative
- B. Quantitative**
- C. Descriptive
- D. Narrative

50. Informal evaluation is best used for

- A. Certification
- B. Improving teaching**
- C. Promotion
- D. Ranking

51. Formal evaluation may create

- A. Motivation only
- B. Exam stress**
- C. Joyful learning
- D. Interaction

52. Informal evaluation encourages

- A. Fear
- B. Free expression**
- C. Competition
- D. Silence

53. Informal evaluation helps teachers to

- A. Judge final result
- B. Adjust teaching methods**
- C. Rank students
- D. Punish students

54. Formal evaluation mainly measures

- A. Learning process
- B. Achievement**

C. Interaction  
D. Participation

55. Informal evaluation is more suitable for  
A. End-term  
**B. Formative assessment**  
C. Certification  
D. Ranking

56. Formal evaluation emphasizes  
A. Understanding  
**B. Scores and grades**  
C. Discussion  
D. Exploration

57. Informal evaluation is continuous because  
A. It is written  
**B. It occurs during teaching**  
C. It is difficult  
D. It is final

58. Both formal and informal evaluation are  
A. Opposite  
**B. Complementary**  
C. Unrelated  
D. Same

59. Informal evaluation helps in  
A. Ignoring slow learners  
**B. Early identification of difficulties**  
C. Final promotion  
D. Ranking

60. Effective evaluation uses  
A. Only formal tools  
B. Only informal tools  
**C. Both formal and informal tools**  
D. Exams only

**C. Error Analysis (61–90)**

61. Error analysis means  
A. Ignoring mistakes  
**B. Studying students' errors**  
C. Punishing students  
D. Reducing marks

62. Error analysis helps teachers to  
A. Criticize learners  
**B. Understand misconceptions**  
C. Increase workload  
D. Fail students

63. Errors in mathematics mostly occur due to  
A. Laziness  
**B. Misconceptions**  
C. Intelligence  
D. Discipline

64. Error analysis helps in  
A. Ranking students  
**B. Improving teaching methods**  
C. Increasing fear  
D. Memorization

65. Errors should be treated as  
A. Failures  
**B. Learning opportunities**  
C. Crimes  
D. Negligence

66. Conceptual errors arise due to  
A. Speed  
**B. Lack of understanding**  
C. Neatness  
D. Writing

67. Procedural errors occur when students  
A. Don't know concepts  
**B. Apply steps incorrectly**

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C. Guess answers  
D. Skip exams

68. Error analysis helps teachers to plan  
A. Exams  
**B. Remedial teaching**  
C. Punishment  
D. Ranking

69. Frequent errors indicate  
A. Carelessness  
**B. Learning difficulty**  
C. Laziness  
D. Low IQ

70. Error analysis should be  
A. Punitive  
**B. Diagnostic**  
C. Judgmental  
D. Casual

71. Errors in mathematics help teachers to  
A. Ignore students  
**B. Identify weak areas**  
C. Increase syllabus  
D. Reduce teaching

72. Error analysis promotes  
A. Fear  
**B. Reflective teaching**  
C. Memorization  
D. Guessing

73. Errors should be corrected through  
A. Punishment  
**B. Proper guidance**  
C. Insult  
D. Comparison

74. Error analysis helps students to  
A. Feel embarrassed  
**B. Learn from mistakes**

C. Avoid maths  
D. Guess answers

75. Common errors in maths include  
A. Language errors  
**B. Conceptual and procedural errors**  
C. Emotional errors  
D. Moral errors

76. Error analysis reduces  
A. Learning  
**B. Repetition of mistakes**  
C. Understanding  
D. Interest

77. Error analysis is essential for  
A. Fast learners only  
**B. All learners**  
C. Toppers only  
D. Teachers only

78. Errors should be discussed in a  
A. Punitive manner  
**B. Supportive environment**  
C. Competitive way  
D. Fearful manner

79. Error analysis helps in  
A. Speed improvement only  
**B. Concept clarification**  
C. Memorization  
D. Guessing

80. Error analysis is a part of  
A. Formal evaluation only  
**B. Diagnostic evaluation**  
C. Summative evaluation  
D. Final examination

81. Teachers should view errors as  
A. Weaknesses only  
**B. Indicators of thinking**

C. Failure signs  
D. Carelessness

82. Error analysis supports  
A. Mechanical learning  
**B. Conceptual learning**  
C. Rote memory  
D. Guesswork

83. Error analysis should be done  
A. After exams only  
**B. Continuously**  
C. Occasionally  
D. Rarely

84. Error analysis improves  
A. Fear  
**B. Teaching effectiveness**  
C. Anxiety  
D. Confusion

85. Errors reveal students'  
A. Intelligence level  
**B. Thinking process**  
C. Background only  
D. Writing skill

86. Error analysis helps in  
A. Punishment  
**B. Designing remedial measures**  
C. Ranking  
D. Promotion

87. Teachers should encourage  
students to  
A. Hide errors  
**B. Discuss errors openly**  
C. Avoid practice  
D. Guess answers

88. Error analysis is useful for  
A. Teachers only  
**B. Both teachers and students**

C. Parents only  
D. Administrators only

89. Error analysis helps to  
A. Increase workload  
**B. Prevent future mistakes**  
C. Increase anxiety  
D. Delay learning

90. Error analysis is most useful in  
A. Rote learning  
**B. Concept-based learning**  
C. Guessing  
D. Memorization

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**D. Remedial and Enrichment Programmes (91–120)**

91. Remedial teaching is meant for  
A. All students  
**B. Slow learners**  
C. Toppers only  
D. Teachers

92. Remedial programmes aim to  
A. Promote competition  
**B. Remove learning difficulties**  
C. Increase syllabus  
D. Rank students

93. Remedial teaching should be  
A. General  
**B. Individualized**  
C. Mechanical  
D. Rigid

94. Remedial teaching is based on  
A. Guessing  
**B. Diagnostic evaluation**  
C. Final exams  
D. Promotion

95. Remedial teaching helps in  
A. Ignoring errors

B. **Correcting misconceptions**

C. Speed writing

D. Ranking

96. Remedial teaching should be

A. Punitive

B. **Supportive**

C. Competitive

D. Stressful

97. Enrichment programmes are meant for

A. Slow learners

B. Average learners

C. **Gifted learners**

D. All learners only

98. Enrichment programmes aim to

A. Repeat syllabus

B. **Extend learning beyond syllabus**

C. Reduce learning

D. Memorization

99. Enrichment activities include

A. Drill only

B. **Projects and puzzles**

C. Repetition

D. Punishment

100. Remedial teaching focuses on

A. Strengths

B. **Weak areas**

C. Ranking

D. Speed

101. Enrichment programmes promote

A. Fear

B. **Creativity and higher-order thinking**

C. Memorization

D. Guessing

102. Remedial teaching should be conducted

A. Before diagnosis

B. **After identifying errors**

C. Randomly

D. Once a year

103. Enrichment programmes help

A. Slow learners only

B. **Fast learners grow further**

C. Teachers only

D. Administrators

104. Remedial teaching uses

A. Same method for all

B. **Different strategies**

C. Exams only

D. Punishment

105. Enrichment programmes include

A. Revision

B. **Challenging problems**

C. Remedial drills

D. Repetition

106. Remedial teaching aims to

A. Lower standards

B. **Bring learners to expected level**

C. Create fear

D. Increase syllabus

107. Enrichment activities make learning

A. Mechanical

B. **Interesting and challenging**

C. Stressful

D. Rigid

108. Remedial teaching helps to

A. Promote rote learning

B. **Build confidence**

C. Increase anxiety  
D. Rank students

109. Enrichment programmes encourage  
A. Memorization  
**B. Independent thinking**  
C. Guessing  
D. Dependence

110. Remedial teaching should be  
A. Group-based only  
**B. Need-based**  
C. Random  
D. Uniform

111. Enrichment programmes help students to  
A. Avoid maths  
**B. Explore deeper concepts**  
C. Memorize more  
D. Guess answers

112. Remedial teaching reduces  
A. Interest  
**B. Learning gaps**  
C. Participation  
D. Understanding

113. Enrichment programmes are a part of  
A. Punishment  
**B. Differentiated instruction**  
C. Ranking  
D. Drill

114. Remedial teaching should be  
A. Fast-paced  
**B. Slow and systematic**  
C. Rigid  
D. Competitive

115. Enrichment programmes motivate students to  
A. Compete blindly  
**B. Learn beyond textbook**  
C. Fear failure  
D. Memorize

116. Remedial teaching supports  
A. Only exams  
**B. Inclusive education**  
C. Ranking  
D. Competition

117. Enrichment activities should be  
A. Easy  
**B. Challenging**  
C. Repetitive  
D. Mechanical

118. Remedial teaching improves  
A. Anxiety  
**B. Basic mathematical skills**  
C. Fear  
D. Confusion

119. Enrichment programmes develop  
A. Speed only  
**B. Higher-order thinking skills**  
C. Memorization  
D. Guessing

120. Effective mathematics teaching requires  
A. Only evaluation  
B. Only exams  
**C. Evaluation, remedial and enrichment programmes**  
D. Ranking

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