1. **Siddhi makes careful observations of her mathematics classroom, gives regular worksheets to her students in class. She also gives feedback to students on their errors and alternate conceptions. The assessment technique that Siddhi uses is:**
2. Summative assessment
3. Diagnostic assessment
4. Formative assessment
5. Prognostic assessment

**2.“Creating a positive classroom environment is major responsibility of teachers”. Which of the following most appropriately depicts the above situation**:

1. Teachers should allow the students to do whatever they want in the classroom
2. Teachers should play many games in the classroom with the students
3. Teachers and students should have an active role in teaching learning process
4. Teachers should not give any homework to the students

**3. Firoz is able to read the scale given on the map and determine the distance between two places correctly. He is displaying:**

1. Measurement thinking
2. Transposition
3. Superimposition
4. Proportional thinking

**4.Deductive reasoning is an important foundation of mathematics. The correct sequence of steps involved in deductive reasoning is:**

1. Theory- Hypothesis- patterns- confirmation
2. Patterns- theory- confirmation- hypothesis
3. Confirmation- hypothesis- theory- patterns
4. Hypothesis- patterns- confirmation- theory
5. **Which of the following is least appropriate about intuitive knowledge in mathematics**
6. It can play an important role in critical thinking among learners
7. It can be applied in proving mathematical theorems and developing logical arguments
8. It is a kind of knowledge which is generally based on scientific empirical knowledge
9. It can coexist with formal knowledge
10. **Reena realizes that there is not any difference between square and rectangle. She is at what stage of Van Hieles geometric thinking:**
11. Level 0 (visualization)
12. Level1 (Analysis)
13. Level 2 (Relationships)
14. Level 3 (Deduction)
15. **A child is class V states that “½ is less than 1/3”. Here the child is over generalizing the idea of:**
16. Ratios
17. Natural numbers
18. Irrational numbers
19. Proportions
20. **According to NCF 2005, which of the following is most important aspect of teaching of mathematics at primary level?**
21. Preparing children for higher education and employment
22. Promoting and preparing children for coding
23. Making mathematics a part of children’s life experience
24. To become a business person in future
25. **Which of the following is least likely to improve teaching- learning in mathematics?**
26. Knowing ways in which assessment affects the confidence of learners
27. Providing complete solutions to student’s wrong answers
28. Enhanced quality of feedback
29. Using result of assessment to modify teaching
30. **A non-rigid transformation that produces two similar 2-D shape is called:**
31. Dilation
32. Reflection
33. Rotation
34. Transformation
35. **Madhav says in his mathematics class that 6 is two threes and a ten rupee is two 5 rupees. Madhav is indicating which type of reasoning?**
36. Hierarchical Inclusion
37. Proportional
38. Place value
39. Counting
40. **Which of the following practices is least appropriate for lesson planning in mathematics?**
41. Establish mathematics goals to focus on learning
42. Gives tasks that promotes reasoning and problem solving
43. Pose purposely problems for students
44. Give home task of solving all the textbook questions based on the concept taught
45. **Which of the following questions is statistical in nature?**
46. What is the cost of the pen?
47. Which road is safest to drive?
48. What is the number of match sticks in a given matchbox?
49. The number of tiles to cover a given area of floor
50. **Which of the following process is required to be developed in the child to solve the following problem: 5x-8=x+4**
51. Memorization
52. Use of identities
53. Induction
54. Transportation
55. **A statement that is taken to be true usually because it is self-evidently true is called a/an:**
56. Theorem
57. Axiom
58. Proof
59. Lemma
60. **As per the NCERT, which of the following is NOT one of the expected learning outcomes for class VI learners?**
61. Solves problems involving larger numbers by making use of appropriate operations
62. Uses variables with different operations to generalize a given situation
63. uses unitary method in solving various word problems
64. write formal proofs of geometric theorems
65. **Mathematical thinking is indicated by:**
66. identification of patterns
67. memorization of formulae
68. memorization of multiplication tables
69. achieving mastery in algorithms
70. **Which of the following is least related to Higher Order Thinking Skills In Mathematics?**
71. Identifying the relationships among variables
72. Analysis the data
73. Solving a problem based on the given formula
74. Making connections between mathematics and everyday life
75. **Which of the following is a least effective pedagogical tool for an inclusive mathematics classroom?**
76. Use of ICT tools
77. Use of standardized tests
78. Use of models, such as tactile graphs and abacus
79. Use of formative and summative tests
80. **Which of the following methods are NOT involved in mathematical proofs?**
81. Empirical observation
82. Deductive reasoning
83. Verification
84. Logical reasoning
85. **Which of the following can be the most appropriate teaching-learning resource for introduction of the concept of similarity in geometry?**
86. Differently sized photographic images of same objects
87. Drawings of similar looking shapes
88. PowerPoint presentation on definition of similarity
89. A textbook chapter of similarity
90. **According to Piaget at which stage children begin to show mathematical reasoning skills?**
91. Concrete operational stage
92. Pre operational stage
93. Sensory motor stage
94. Formal operational stage
95. **Which of the following is a biconditional statement of the following statements:**

**p: One is less than seven; q: two is less than eight**

1. For every, one is less than seven, there exists two is less than eight
2. One is less than seven, if and only if two is less than eight
3. If one is less than seven, than two is less than eight
4. One is not less than seven and two is not less than eight
5. **The numbers which can be expressed as sum of two cubes in two different ways are called as:**
6. Cube numbers
7. Prime numbers
8. Ramanujan numbers
9. Pythagorean numbers
10. **For two statements (A) and (B) given below, choose the correct alternatives.**

Statement (A): The teacher who connects mathematical concepts with the objects around the students, can help in developing the mathematical understanding of students.

Statement(B): students come to the classroom with a lot of learning from the environment.

1. Both (A) and (B) are true and (R ) is the correct explanation of ( A).
2. Both (A) and (B) are true but ( R ) is the not correct explanation of ( A).
3. (A) is true but ( R ) is false.
4. (A) is false but ( R ) is true.
5. **Which of the following covers most questions from a specific content?**
6. Achievement test
7. Norm- referenced test
8. Diagnostic test
9. Summative test

**27. Which of the following are the features of formative assessment at upper primary level?**

1. Identifying the learning gaps
2. Grading and ranking the students
3. Identifying the common errors
4. Giving feedback to the students and teachers

Choose the correct option

1. (a) and (b)
2. (b) and ( d)
3. (a) and (b)
4. (a) ,(c) and (d)

**28. When asked to find the sum of 5x and 3y , a child has done it in the following way: 5x+3y=8xy. This is an example of:**

1. Comprehension error
2. Careless error
3. Conceptual error
4. Random error

**29. Inductive method of teaching mathematics does not:**

1. Proceed from particular to general
2. Take care of needs and interests of learners
3. Proceed from abstract to concrete
4. Encourage discovery and independent thinking

**30. To prove that “if n^2 is even , then n is even” , teacher begins by assuming that n^2 is even and n is odd and then proceeds to show how this assumption is not possible. It is an example of proof by:**

1. Induction
2. Deduction
3. Contradiction
4. verification

**31. Contemporary understanding of mathematics pedagogy is reflected by which of the following statements?**

1. not all children are capable of understanding mathematical concepts
2. mathematical abilities are innate in nature
3. mathematical abilities are gender specific
4. mathematics is for all and all children can learn mathematics.

**32. Ravi uses the following step for solving an algebraic equation**

2x+14=26

2x=26-14.

It is an example of:

1. visualization
2. transportation
3. elimination
4. trial and error