



BGS Vijnatham School

Mock Test UT-2

Subject: Mathematics

Step: VII

Maximum Marks: 40 Marks

Name of the Student: _____ Time Duration: 1 hr. 20 min.

General Instructions:

- All questions are compulsory.
- The question paper consists of five sections and **20** questions.
- **Section A** comprises 9 MCQs and 2 Assertion and Reason questions of **1** mark each.
- **Section B** comprises Short Answer Type I (SA-I) questions of **2** marks each.
- **Section C** comprises Short Answer Type II (SA-II) questions of **3** marks each.
- **Section D** comprises sources based /case-based questions of **4** marks each.
- **Section E** comprises Long Answer (LA) questions of **5** marks each
- *There is no overall choice. However, internal choices have been provided in some questions. Students are required to attempt only one of the alternatives in such questions*

Section A (1 Mark Each)

1. Which is the smallest decimal?

- (a)5.06 (b)5.6 (c)5.006 (d)5.60

2. $8 + 0.8 + 0.08 = ?$

- (a)8.88 (b)8.808 (c)8.88 (d)8.088

3. If $m=7$, find $4m+9$.

- (a)47 (b)37 (c)37 (d)38

4. Expression for '12 less than x'.

- (a) $12 - x$ (b) $x - 12$ (c) $12x - x$ (d)12

5. $14.35 - 6.78 = ?$

- (a)7.57 (b)5.75 (c)7.75 (d)7.77

6. Simplify $9p - 4p + 2p$.

- (a)7p (b)5p (c)4p (d)2p

7. Which of the following is an algebraic expression?

- (a) $5x=2$ (b) $5x-2$ (c) $5x^2=2$ (d)8

8. Solve for x in $(2x-3)=11$.

- (a)7 (b)5 (c)4 (d)2

9. Coefficient of y in $-9y+4$.

- (a)-7 (b)-9 (c)4 (d)2

Q10.Direction: In the following questions (10 and 11) a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option:

- (a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

Assertion: The diagonals of a rectangle are equal.

Reason: A rectangle is a parallelogram with all angles equal.

Q11. Assertion: Every square is a rhombus.

Reason: A square has four equal sides.

Section B (2 Marks Each)

Q12. Three angles of a quadrilateral are 72° , 98° and 105° . Find the fourth angle.

Q13. Two opposite angles of a parallelogram are $(5x-10)^\circ$ and $(3x+30)^\circ$. Find x and each angle.

Q14. Write 392 in Roman numerals.

Section C (3 Marks Each)

Q15. Represent 1845 in the Egyptian number system.

Q16. The angles of a quadrilateral are in the ratio 2:3:4:9. Find all four angles.

Q17. Explain why every square is a parallelogram but every parallelogram is not a square.

OR

Adjacent angles of a parallelogram are in the ratio 5:4. Find all angles.

Section D (4 Marks)

Q18. Case Study: PQRS has $PQ \parallel SR$, $PQ=SR$, diagonals bisect each other and $\angle P=110^\circ$. Answer:

(i) Identify the quadrilateral.

(ii) Find $\angle R$.

(iii) Find $\angle Q$.

(iv) State one property proving it is a parallelogram.

Section E (5 Marks)

Q19. Length and breadth of a rectangle are in the ratio 7:5. If perimeter is 72 cm, find the dimensions.

Q20. Construct a rhombus whose diagonals are 8 cm and 6 cm.

OR

Draw a rectangle and write any five properties.