MRD-IX-18(A) P-1442

MATHS (Science) PART-I

Paper Version

NOTE: Attempt all question of Section-A by filling the corresponding bubble on the MCQ ANSWER SHEET and return it to the Superintendent within given time, even if you have not attempted any question.

Time :20 Minutes Marks: 15

SECTION—A

1. The matrix $\begin{bmatrix} 5 & 0 \\ 0 & -3 \end{bmatrix}$ is .....

(A) Scalar matrix (B) 2 by 3 matrix (C) diagonal (D) none of these

2. $\sqrt{-1} \times \sqrt{-1} =$.....

(A) 1 (B) - 1 (C) i (D) 0

3. $\text{Log}_x 3 = 3$ then x = ...

(A) 36 (B) 64 (C) 216 (D) 221

4. $a^2 - b^2 =$ .....

(A) $(a-b)^2 + 2ab$ (B) $(a+b)(a-b)$ (C) $(a-b)(a-b)$ (D) none of these

5. Conjugate of $3 - \sqrt{5} =$ .....

(A) $-3 - \sqrt{5}$ (B) $-3 + \sqrt{5}$ (C) $3 + \sqrt{5}$ (D) none of these

6. Factorization of $x^2 + 5x + 6$ is .....

(A) $(x+2)(x+3)$ (B) $(x-2)(x+3)$ (C) $(x+2)(x-3)$ (D) $(x-2)(x-3)$

7. There are ..... Methods for finding H.C.F

(A) one (B) two (C) three (D) four

8. L.C.M of a^2-a+1 and a^3+1 is .....

(A) $a+1$ (B) a^2-a+1 (C) $a-1$ (D) a^2+a+1

9. The solution set of $5 - 3x = -4$ is .....

(A) {-3} (B) {1, 3} (C) {3} (D) {9}

10. The point (1, 2) lies in .....

(A) quadrant I (B) quadrant II (C) Quadrant III (D) quadrant IV

11. The mid point of AB where A (3, 0) and B (3, 4) is .....

(A) (3, 3) (B) (3, 2) (C) (6, 4) (D) (6, 2)

12. How many right angles can be there in a triangle?

(A) at the most 1 (B) two (C) at least 1 (D) none of these

13. Which of the following are the sides of right angled triangle.

(A) 2, 3, 4 (B) 3, 4, 5 (C) 4, 5, 6 (D) 5,6,7

14. If measure of three angles of a triangle are known how many triangles can be constructed

(A) only one triangle (B) two triangles (C) no triangles (D) infinite triangle

15. Perpendicular distance between two lines in the same. The lines are .....

(A) perpendicular to each other (B) parallel to each other

(C) Intersecting (D) None of these