

Math (Science)

Group-I

Time: 20 Minutes

(Objective Type)

Max Marks: 10

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill the circle in front of that question with Marker or Pen. Cutting or filling two or more circles will result in zero mark in that question.

- 1-1- $(3 + \sqrt{2})(3 - \sqrt{2})$ is equal to:
 (a) $7\sqrt{\quad}$ (b) -7
 (c) -1 (d) 1
- 2- If x is no larger than 10, then:
 (a) $x \geq 8$ (b) $x \leq 10\sqrt{\quad}$
 (c) $x < 10$ (d) $x > 10$
- 3- Product of $\begin{bmatrix} x & y \\ -1 & 2 \end{bmatrix}$ is equal to ---- .
 (a) $[2x + y]$ (b) $[x - 2y]$
 (c) $[2x - y]\sqrt{\quad}$ (d) $[x + 2y]$
- 4- Mid-point of the points $(0, 0)$ and $(2, 2)$ is:
 (a) $(1, 1)\sqrt{\quad}$ (b) $(1, 0)$
 (c) $(0, 1)$ (d) $(-1, -1)$
- 5- '⊥' is the symbol of :
 (a) Perpendicular $\sqrt{\quad}$ (b) Congruent
 (c) Parallel (d) Equal
- 6- Congruent triangles are ---- .
 (a) Parallel (b) Similar $\sqrt{\quad}$
 (c) Different (d) None of these
- 7- Medians of a triangle are ---- .
 (a) Same (b) Different
 (c) Concurrent $\sqrt{\quad}$ (d) Equal

- 8- ---- congruent triangles can be made by joining the mid-points of the sides of a triangle.
- (a) 3 (b) 4 ✓
(c) 5 (d) 2
- 9- What will be added to complete the square of $9a^2 - 12ab$:
- (a) $-16b^2$ (b) $16b^2$
(c) $4b^2$ ✓ (d) $-4b^2$
- 10- The bisectors of the angles of a triangle are ---- .
- (a) Concurrent ✓ (b) Different
(c) Same (d) Equal
- 11- The medians of a triangle cut each other in the ratio ---- .
- (a) 4 : 1 (b) 3 : 1
(c) 2 : 1 ✓ (d) 1 : 1
- 12- Point (2, -3) lies in the quadrant:
- (a) I ✓ (b) II
(c) III (d) IV ✓
- 13- The logarithm of unity to any base is ---- .
- (a) 1 (b) 10
(c) e (d) 0 ✓
- 14- L.C.M of $a^2 + b^2$ and $a^4 - b^4$ is:
- (a) $a^2 + b^2$ (b) $a^2 - b^2$
(c) $a^4 - b^4$ ✓ (d) $a - b$
- 15- In $\sqrt[3]{35}$ the radicand is ---- .
- (a) 3 (b) $\frac{1}{3}$
(c) 35 ✓ (d) None of these