

Note:

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

- 1.1 Simplify $\frac{a}{9a^2 - b^2} + \frac{1}{3a - b} = \text{-----}$:
- (A) $\frac{4a}{9a^2 - b^2}$ (B) $\frac{4a - b}{9a^2 - b^2}$
 (C) $\frac{4a + b}{9a^2 - b^2}$ (D) $\frac{b}{9a^2 - b^2}$
- 2 Congruent triangles are:
 (A) Concurrent (B) Same size and shape
 (C) Different (D) Parallel
- 3 Symbol used for congruency of two triangles is —
 (A) \cong (B) \equiv
 (C) Δ (D) $=$
- 4 A triangle having two sides congruent is called —
 (A) Scalene (B) Right angled
 (C) Equilateral (D) Isosceles
- 5 Identity matrix of order 2-by-2 is :
 (A) $\begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix}$ (B) $\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$
 (C) $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ (D) $\begin{bmatrix} 1 & 0 \\ 1 & 0 \end{bmatrix}$
- 6 If x is no larger than 10, then -----:
 (A) $x \geq 8$ (B) $x \leq 10$
 (C) $x < 10$ (D) $x > 10$
- 7 The bisector of the angles of triangle are -----
 (A) Parallel (B) Perpendicular
 (C) Congruent (D) Concurrent
- 8 Conjugate of surd $x + \sqrt{y}$ -----:
 (A) $-x + \sqrt{y}$ (B) $x - \sqrt{y}$
 (C) $-x - \sqrt{y}$ (D) $\sqrt{x} - y$
- 9 Triangles on equal bases and of equal altitudes are ----- in area:
 (A) Equal (B) Unequal
 (C) Different (D) Similar
- 10 Point (2, -3) lies in the quadrant -----:
 (A) I (B) II
 (C) III (D) IV
- 11 $\log_a m^n = \text{-----}$:
 (A) $n \log_a m$ (B) $m \log_a n$
 (C) $\log_a m$ (D) $\log_a n$
- 12 Find 'm' so that $x^2 + 4x + m$ is a complete square:
 (A) 8 (B) -8
 (C) 4 (D) -4
- 13 Distance between the points (0, 0) and (1, 1) is:
 (A) 0 (B) 1
 (C) 2 (D) $\sqrt{2}$
- 14 $i^{19} = \text{-----}$:
 (A) 1 (B) -1
 (C) i (D) -i
- 15 If two opposite sides of a quadrilateral are congruent and parallel, it is a-----:
 (A) Parallelogram (B) Square
 (C) Rhombus (D) Trapezium