(Objective)

(Group-I)

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 The diagonals of a parallelogram _____ each other.
- (A) bisect
- (B) trisect
- (C) bisect of right angle
- (D) divide

2 A triangular region is the _____ of a triangle and its interior.
- (A) intersection
- (B) union
- (C) sum
- (D) difference

3 Symbol used for congruent is _____.
- (A) $\cong$
- (B) $\sim$
- (C) $\neq$
- (D) $\leq$

4 Bisection means to divide into _____ equal part/parts.
- (A) 3
- (B) 4
- (C) 2
- (D) 1

5 In a parallelogram, opposite angles are
- (A) smaller
- (B) equal
- (C) greater
- (D) concurrent

6 In a triangle, there can be _____ right angle/angles.
- (A) 4
- (B) 3
- (C) 2
- (D) 1

7 A triangle having all sides equal, is called
- (A) isosceles
- (B) scalene
- (C) equilateral
- (D) right triangle

8 $x=0$ is a solution of the inequality
- (A) $x>0$
- (B) $3x+5<0$
- (C) $x+2<0$
- (D) $x-2<0$

9 If $x=2$, $y=2x+1$ then y is equal to
- (A) 2
- (B) 3
- (C) 4
- (D) 5

10 H.C.F of a^2-b^2 and a^3-b^3 is
- (A) $a-b$
- (B) $a+b$
- (C) a^2+ab+b^2
- (D) a^2-ab+b^2

11 Find m so that x^2+4x+m is a complete square
- (A) 8
- (B) -8
- (C) 4
- (D) 16

12 $\log p - \log q =$ _____
- (A) $\log\left(\dfrac{q}{p}\right)$
- (B) $\log(p-q)$
- (C) $\dfrac{\log p}{\log q}$
- (D) $\log\dfrac{p}{q}$

13 $\dfrac{1}{a-b} + \dfrac{1}{a+b}$ is equal to
- (A) $\dfrac{2a}{a^2-b^2}$
- (B) $\dfrac{2b}{a^2-b^2}$
- (C) $\dfrac{-2a}{a^2-b^2}$
- (D) $\dfrac{-2b}{a^2-b^2}$

14 The conjugate of $5+4i$ is
- (A) $-5+4i$
- (B) $-5-4i$
- (C) $5-4i$
- (D) $5+4i$

15 Product of $\begin{bmatrix} x & y \end{bmatrix}\begin{bmatrix} 2 \\ 1 \end{bmatrix}$ is equal to
- (A) $[2x+y]$
- (B) $[x-2y]$
- (C) $[2x-y]$
- (D) $[x+2y]$