

**SECTION-A**

Note:

- 1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after the time.
- 2) Fill the circle (A) (B) (C) (D), which one is correct with blue or black ball point in separate OMR Sheet like
- 3) If more than one circle in the OMR sheet is filled then no credit will be given to such answer.

- I.i.  $1 + \tan^2 \theta =$  \_\_\_\_\_
- (A)  $\sin^2 \theta$                       (B)  $\cos^2 \theta$                       (C)  $\operatorname{Cosec}^2 \theta$                       (D)  $\sec^2 \theta$
- ii. Pythagoras was a \_\_\_\_\_ Mathematician.
- (A) Indian                      (B) Greek                      (C) Pakistani                      (D) Chinese
- iii. A chord is 5 cm from the centre of a circle of radius 13 cm then length of chord is \_\_\_\_\_
- (A) 6 cm                      (B) 12 cm                      (C) 24 cm                      (D) 30 cm
- iv. Two tangents drawn to a circle from a point outside it are of \_\_\_\_\_ in length.
- (A) Half                      (B) Equal                      (C) Double                      (D) Triple
- v. How many Tangents can be drawn from the point outside the circle \_\_\_\_\_
- (A) 1                      (B) 2                      (C) 3                      (D) 4
- vi. The most frequent value in the data is called \_\_\_\_\_
- (A) Mean                      (B) Median                      (C) Mode                      (D) G.Mean
- vii. The reciprocal of Arithmetic Mean is \_\_\_\_\_
- (A) G. Mean                      (B) Harmonic Mean                      (C) Median                      (D) Mode
- viii. If A has two elements and B has three elements, then number of binary relation in  $A \times B$  is \_\_\_\_\_
- (A)  $2 \times 3$                       (B)  $2^3$                       (C)  $2^6$                       (D)  $2^2$
- ix. Direct variation between  $a$  and  $b$  is expressed as \_\_\_\_\_
- (A)  $a = b$                       (B)  $a = \frac{1}{b}$                       (C)  $a \propto b$                       (D)  $a \propto 1/b$
- x.  $\frac{2x^2+1}{x-1}$  is \_\_\_\_\_ fraction.
- (A) Improper rational                      (B) Proper rational                      (C) Irrational                      (D) Proper irrational
- xi. The third proportional of  $x$  and  $y$  is \_\_\_\_\_
- (A)  $xy$                       (B)  $\frac{x}{y}$                       (C)  $\frac{y^2}{x}$                       (D) None of these
- xii. Discriminant of  $4x^2 + x + 1 = 0$  is \_\_\_\_\_
- (A) 15                      (B) -15                      (C) 16                      (D) 17
- xiii. The sum of the cube roots of unity is \_\_\_\_\_
- (A) 1                      (B) 2                      (C) Zero                      (D)  $\pm 1$
- xiv. If  $x^2 - \frac{1}{4} = 0$  Then solution are \_\_\_\_\_
- (A)  $x = \pm \frac{1}{2}$                       (B)  $x = \pm \frac{1}{4}$                       (C)  $x = \pm \frac{1}{8}$                       (D)  $x = \pm \frac{1}{16}$
- xv. If  $2^x = 1/2$  then  $X =$  \_\_\_\_\_
- (A) -1                      (B) 0                      (C) 2                      (D) None of the