PAPER-5

SECTION - A

- **Do as directed. (Q. 1 to 24) [1 Marks Each]** **(24)**
- **Choose the correct option. (Q. 1 to 6)**

(1) If $am \neq bl$ then the equations $ax + by = 0$ and $lx + my = n$ have _____ Solution.

(A) unique

(B) Empty

(C) Infinite

(D) may be or may not be

(2) The line $5x - 3y - 18 = 0$ meets y-axis at ____

(A) (0,6) (B) (0, -6)

(C) (0,18/5) (D) (6,0)

(3) The n^{th} term of an AP: 8, 3, -2,.... is _____

(A) -2+3n (B) 5-13n

(C) 13-5n (D) 8+3n

(4) Perpendicular distance from X-axis point (-5,7) is _____.

(A) -5 (B) 5

(C) -7 (D) 7

(5) $\tan 30° \tan 60° =$ _____

(A) $\sqrt{3}$ (B) $1/\sqrt{3}$

(C) 0 (D) 1

(6) out of the following which measure depends on the value of all the observations.

(A) Mean (B) Median

(C) Mode (D) None of these

- **Fill in the blanks. (Q. 7 to 12)**

(7) $22 = 3K+1$ then $K = (1, 7, 14)$

(8) If $\propto$ and ß are zeroes of quadratic equation $ax^2+bx+c=0$, where $a \neq 0$ then $\propto + \beta =$ _____ $(-b/a, b/a, c/a)$

(9) _____ is the short form of cosecant A. (cosA, cosecA, Sec A)

(10) A circle can have ____ parallel tangents at the most. (2, 1, 0)

(11) If the mode of a data is 53 and mean is 33 then its median is _____. (36.97, 38, 36.67)

(12) The probability of an impossible event is _____ (1, 0, 2)

- **Write the statements true or false. (Q. 13 to 16)**

(13) $\frac{6\sqrt{3}}{\sqrt{3}}$ is an irrational number.

(14) Maximum zeroes of quadratic polynomial. is 2

(15) The general form of a linear equation in two Variables $ax+by+c=0$.

(16) The probability of certain event is 1

- **Match the following. (Q. 17 to 20)**

	A	B
(17)	circumference of cincle	(a) $\frac{\pi r\theta}{180}$
(18)	Length of minor arc	(b) $\frac{\pi r^2\theta}{360}$
		(c) $2\pi r$

	A	B
(19)	volume of 10 rupees coin	(a) $4\pi r^2$
(20)	Total surface area of hemisphere	(b) $\pi r^2 h$
		(c) $3\pi r^2$

- **Solve the following. (Q. 21 to 24)**

(21) If an AP L=28, S =144 and there are total 9 terms. Find a

(22) what is the angle between the tangent line and the radius at the point of contact ?

(23) The median of 7, 5, 6, 8, 9, 17, 4 is ___. (8, 7, 9)

(24) what is the probability of the sun rises in the west?