

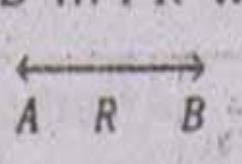
MATHEMATICS (9TH)

Marks: 75

Time : 20 min SECTION - A

Marks: 15

Q.1 Choose the correct option:

- i) If $Z = \begin{bmatrix} 2 & 3 \\ 3 & 4 \end{bmatrix}$, then $z^{-1} =$ _____
- a) $\begin{bmatrix} 4 & 3 \\ -3 & 2 \end{bmatrix}$ b) $\begin{bmatrix} 4 & -3 \\ -3 & 2 \end{bmatrix}$
 c) $\begin{bmatrix} -2 & 3 \\ 3 & -4 \end{bmatrix}$ d) $\begin{bmatrix} -4 & 3 \\ 3 & -2 \end{bmatrix}$
- ii) (i) $(-i) =$ _____
 A) 1 B) -1 C) i D) $-i$
- iii) Characteristics of $\log 0.000059$ is:
 A) -5 B) 5 C) -4 D) 4
- iv) $(a + b + c)^2 =$ _____
 a) $a^2 + b^2 + c^2$ b) $a^2 + b^2 + c^2 + 2(a+b+c)$
 c) $a^2 + b^2 + c^2 + 2(ab + bc + ca)$ d) $a + b + c + 2(ab + bc + ca)$
- v) Zero of polynomial $P(x) = x^2 - 4x + 3$ is:
 A) 0 B) 1 C) 4 D) -1
- vi) HCF of $a^3 - b^3$ and $a^2 + ab + b^2$ is :
 a) $a + b$ b) $a^2 + ab + b^2$
 c) $a - b$ d) $(a - b)^2$
- vii) Solve $x, \sqrt{x} = -10$
 A) $\{-10\}$ B) $\{ \}$ C) $\{100\}$ D) $\{10\}$
- viii) $5C^0 =$ _____ F^0
 A) 39 B) 32 C) 35.6 D) 41
- ix) Distance between $(3, -5)$ and $(5, -7)$ is:
 A) $5\sqrt{2}$ B) $4\sqrt{2}$ C) $3\sqrt{2}$ D) $2\sqrt{2}$
- x) Which quadrilateral must have diagonals that are concurrent and perpendicular?
 a) Rhombus b) Square
 c) Trapezoid d) Parallelogram
- xi) A polygon with four sides is called _____
 a) Quadrilateral b) Pentagon
 c) Hexagon d) Triangle
- xii) If in the figure "P" point lies outside \overline{AB} m \overline{PR} will be shortest distance of $m\angle PRA =$ _____

 A) 180° B) 45° C) 100° D) 90°
- xiii) The measure of a line segment joining the mid points of the \overline{AB} and \overline{AC} of $\triangle ABC$ is 3.5 cm then $m\overline{BC} =$ _____
 A) 4.5 cm B) 5.5 cm C) 6 cm D) 7.0 cm
- xiv) If two triangles have equal bases and equal altitudes, what else will they have equal?
 A) Area B) Perimeter C) Angles D) None
- xv) Altitudes of triangle are _____
 a) Equal in length b) Equal distance from vertices
 c) Concurrent d) Perpendicular bisector