



Name _____

Roll No. _____

Time Allowed: 20 Minutes

SECTION - A

Marks : 15

1 $(2p - q)^3 =$

$8p^3 - q^3 - 6pq(2p - q)$ $8p^3 + q^3 + 6pq(2p + q)$ $8p^3 - q^3 + 6pq(2p - q)$ $8p^3 + q^3 - 6pq(2p + q)$

2 The factorization of $2lx + 2mx + 2nx$ is:

$(l + m + n)$ $2(l + m + n)$ $2x(l + m + n)$ $m(2l + 2x + 2n)$

3 If M and N are two polynomials and their HCF and LCM are respectively H and L then M =

$\frac{H \times L}{N}$ $\frac{N}{H \times L}$ $\frac{N}{H}$ $\frac{N}{L}$

4 The solution of linear equation $2t - 3 = t - 1$ is:

-2 $\frac{4}{3}$ 2 $\frac{3}{4}$

5 If U = {4, 5} and V = {7, 6}, then which of the given is ordered pair of $U \times V$?

{(4, 7), (6, 5)} {(6, 5)} {(4, 7), (5, 6)} {(7, 4)}

6 $P^{\frac{2}{9}}$ can be expressed in radical form as:

$\sqrt[3]{P}$ $\sqrt[9]{P}$ $\sqrt[9]{P^2}$ $\sqrt[3]{P^9}$

7 If $z = -3i + 13$ then conjugate of z is:

-3i - 13 3i - 13 3i + 13 -3i

8 9.62×10^{-3} can be written in standard form as:

962000.0 0.000962 0.00962 0.0000692

9 Which of the given is the base of common logarithm?

m e 10 f

10 Which of the given is a polynomial? 10.645

$x^2 + \frac{1}{x^2} + 2$ (where $x \neq 0$) $x^3 + x^{-3} + 3$ $x^4 + x^3 + x^2 + 1$ $x^5 + x^3 + \frac{1}{x^2} + 1$ (where $x \neq 0$)

Which of the given elements represent one of the columns

11 of the matrix $\begin{bmatrix} 12 & 6 & 3 \\ 7 & -5 & 6 \\ 11 & 7 & 9 \end{bmatrix}$

6, -5, 7 7, -5, 6 12, -5, 9 12, 6, 3

Which of the given two matrices are equal?

12 $Q = \begin{bmatrix} 4 & 8 \\ 11 & 7 \end{bmatrix}$ $R = \begin{bmatrix} 4 & 8 \\ 7+3 & 3+3 \end{bmatrix}$

S and T R and S S and Q R and Q

$S = \begin{bmatrix} 4 & 8 \\ 8+3 & 4+3 \end{bmatrix}$ $T = \begin{bmatrix} 6+5 & 2+3 \\ 1+3 & 1+5 \end{bmatrix}$

13 If $A = \begin{bmatrix} 2 & 3 \\ 6 & 4 \end{bmatrix}$ then $A^T =$

$\begin{bmatrix} -2 & -6 \\ -3 & -4 \end{bmatrix}$ $\begin{bmatrix} 2 & 6 \\ 3 & 4 \end{bmatrix}$ $\begin{bmatrix} 4 & 3 \\ 6 & 2 \end{bmatrix}$ $\begin{bmatrix} 2 & 6 \\ 4 & 2 \end{bmatrix}$

14 If $P = \begin{bmatrix} 1 & 3 \\ 4 & 5 \end{bmatrix}$ and $Q = \begin{bmatrix} 2 & -1 \\ 6 & 13 \end{bmatrix}$ then $P - Q$ is equal to:

$\begin{bmatrix} -1 & 4 \\ -7 & -8 \end{bmatrix}$ $\begin{bmatrix} 3 & 2 \\ 10 & 8 \end{bmatrix}$ $\begin{bmatrix} 2 & 3 \\ 24 & 65 \end{bmatrix}$ $\begin{bmatrix} -1 & 4 \\ -2 & -8 \end{bmatrix}$

15 The rational number $\frac{2}{3}$ can be expressed as:

0.66666667 1.6666 0.61661 16.66667