MATHEMATICS 9th	Paper Code	Roll No. of the Student
Time: 20 Minutes Marks: 15	● Ⓑ Ⓒ	
Multiple Choice Questions 01 Mark for each		Serial No. Of the Answer Book_____

SECTION-A

Note:

1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after due time.
2) Fill the circle Ⓐ Ⓑ Ⓒ Ⓓ, which one is correct with blue or black ball 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. Which of the following elements represent one of the columns of the matrix $\begin{bmatrix} 5 & -3 & 7 \\ 6 & -3 & 4 \\ 9 & 7 & -6 \end{bmatrix}$

Ⓐ 5,-3,7 Ⓑ 6,-3,4 ● 7,4,-6 Ⓓ 5,-3,-6

ii. Which of the following two matrices are equal? $F=\begin{bmatrix} 9 & 3 \\ 4 & 5 \end{bmatrix}$ $G=\begin{bmatrix} 5+5 & 3+1 \\ 2+2 & 0+5 \end{bmatrix}$ $H=\begin{bmatrix} 3+6 & 1+2 \\ 2+2 & 0+5 \end{bmatrix}$ $J=\begin{bmatrix} 6+5 & 2+3 \\ 1+3 & 1+5 \end{bmatrix}$

Ⓐ F and G Ⓑ G and H ● H and F Ⓓ J and H

iii. Which of the following is a scalar matrix?

● $\begin{bmatrix} 3 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 3 \end{bmatrix}$ Ⓑ $\begin{bmatrix} 3 & 3 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 3 \end{bmatrix}$ Ⓒ $\begin{bmatrix} 0 & 0 & 3 \\ 0 & 3 & 3 \\ 3 & 0 & 0 \end{bmatrix}$ Ⓓ $\begin{bmatrix} 3 & 3 & 3 \\ 3 & 3 & 3 \\ 3 & 3 & 3 \end{bmatrix}$

iv. If $L=\begin{bmatrix} 3 & 0 \\ -5 & 7 \end{bmatrix}$ and $M=\begin{bmatrix} 6 & 1 \\ -2 & 8 \end{bmatrix}$ then L-M is equal to

Ⓐ $\begin{bmatrix} 9 & 1 \\ 7 & 15 \end{bmatrix}$ Ⓑ $\begin{bmatrix} 3 & -1 \\ -7 & -1 \end{bmatrix}$ ● $\begin{bmatrix} -3 & -1 \\ -3 & -1 \end{bmatrix}$ Ⓓ $\begin{bmatrix} 18 & 0 \\ 15 & 35 \end{bmatrix}$

v. The rational number $\frac{3}{8}$ can be expressed as:

Ⓐ 0.275 ● 0.375 Ⓒ 0.475 Ⓓ 0.216

vi. $m^{\frac{5}{11}}$ can be expressed in radical form as:

Ⓐ $\sqrt[5]{m}$ Ⓑ $\sqrt[5]{m^{11}}$ Ⓒ $\sqrt[11]{m}$ ● $\sqrt[11]{m^5}$

vii. If $z = i - 3$ then conjugate of z is

● $-i-3$ Ⓑ $i+3$ Ⓒ $-i$ Ⓓ $-i+3$

viii. 4.32×10^3 can be written in standard form as :

Ⓐ 432000.0 Ⓑ 43200.0 Ⓒ 4320000.0 ● 4320.0

ix. Which of the following is the base of common logarithm?

Ⓐ e Ⓑ g Ⓒ k ● 10

x. Which of the following is a polynomial?

Ⓐ $4x^3+3x^{-2}+5x+1$ Ⓑ $4x^3+3x^{-2}+7$ ● $4x^3+3x^2+7$ Ⓓ $4x^3+3x^{-3}+5x+1$

xi. $(2y-z)^3=$

Ⓐ $8y^3+z^3-6yz(2y+z)$ ● $8y^3-z^3-6yz(2y-z)$ Ⓒ $8y^3+z^3+6yz(2y+z)$ Ⓓ Non of these

xii. The factorization of $9a^2-6ab+b^2$ is

● $(3a-b)(3a-b)$ Ⓑ $(3a+b)(3a+b)$ Ⓒ $3a(3a-2b)+b^2$ Ⓓ $3a(3a+2b)+b^2$

xiii. If C and D are two polynomials and their HCF is H, then LCM=

Ⓐ $\frac{H}{C \times D}$ ● $\frac{C \times D}{H}$ Ⓒ $\frac{C}{H}$ Ⓓ $\frac{D}{H}$

xiv. The solution of linear eqution $2t+7=t-3$

● -10 Ⓑ 10 Ⓒ $\frac{4}{3}$ Ⓓ $-\frac{4}{3}$

xv. If Y={0,8}, and Z={2,3}, then which of the following is ordered pair of Y × Z?

Ⓐ {(0,2),(3,8)} Ⓑ {(2,0),(8,3)} Ⓒ {(3,8)} ● {(8,3)}