Roll No. : _____

Objective Paper Code **6191**

Intermediate Part First

MATHEMATICS (Objective) Group – I

Time: 30 Minutes Marks: 20

Q.No.1 **You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill the relevant circle in front of that question number on computerized answer sheet. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero marks in that question. Attempt as many questions as given in objective type question paper and leave other circles blank.**

S.#	Questions	A	B	C	D
1	$(7,9)+(3,-5)=:$	$(7,9)$	$(3,-5)$	$(10,4)$	$(4,10)$
2	Which cannot be used as binary operation?	Addition '+'	Division '÷'	Multiplication '×'	Square root '$\sqrt{}$'
3	If adjoint of a matrix $A=\begin{bmatrix}-1 & -2\\ 3 & 4\end{bmatrix}$, then matrix A is:	$\begin{bmatrix}-1 & -2\\ 4 & 3\end{bmatrix}$	$\begin{bmatrix}-4 & 3\\ -2 & 1\end{bmatrix}$	$\begin{bmatrix}4 & 2\\ 3 & -1\end{bmatrix}$	$\begin{bmatrix}4 & 2\\ -3 & -1\end{bmatrix}$
4	Rank of the matrix $\begin{bmatrix}1\\1\\1\\0\end{bmatrix}$ is:	0	1	2	3
5	Which equation has roots 2 and –3 ?	$x^2+x+6=0$	$x^2+x-6=0$	$x^2-x-6=0$	$x^2-x+6=0$
6	If roots of the equation $x^2+px+q=0$ are additive inverse of each other, then which is true?	$p=0$	$q=1$	$p=1$	$p=q$
7	$\frac{x^2+x-1}{Q(x)}$ will be an improper fraction, if:	Degree of $Q(x)=2$	Degree of $Q(x)>2$	Degree of $Q(x)=3$	Degree of $Q(x)\neq 2$
8	Sum of 5 A.Ms between 2 and 8 is:	10	40	25	50
9	If a and b are negative distinct real numbers, then with usual notations, which is correct?	$A>G$	$H<G$	$A<G$	$A>G>H$
10	Which cannot be the term of a G.P. ?	-1	0	1	5
11	A coin is tossed 5 times, then total number of outcomes $n(S)=:$	10	25	20	32
12	2nd term in the expansion of $(1-x)^{-1}$ is:	1	2x	x	–x
13	$\sec\theta\cdot\operatorname{cosec}\theta\cdot\sin\theta\cdot\cos\theta=$	1	-1	0	Cannot be determined
14	In a right angled triangle, the side opposite to right angle is called:	Base	Hypotenuse	Perpendicular	Altitude
15	If $\sin\alpha=\frac{2}{3}$, $\cos\alpha=\frac{3}{4}$, then value of $\sin 2\alpha=:$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{15}{144}$	1
16	Period of $2+\cos 3x$ is:	π	$\frac{3\pi}{2}$	2π	$\frac{2\pi}{3}$
17	In any triangle ABC, $a=4$, $b=10$, $\gamma=30°$, then area of triangle $\Delta=:$	5 sq.units	20 sq.units	10 sq.units	40 sq.units
18	If a, b and c are the sides of a triangle ABC, then $\frac{c^2+b^2-a^2}{2bc}=:$	$\cos\alpha$	$\cos\gamma$	$\cos\beta$	$\cos^2\alpha$
19	If $\sin^{-1}a=0$, then value of a is:	$\frac{\pi}{2}$	π	0	0 & π
20	The solution of the equation $2\sin x+\sqrt{3}=0$ in 4th quadrant is:	$\frac{\pi}{3}$	$\frac{5\pi}{3}$	$\frac{-\pi}{4}$	$\frac{-\pi}{6}$