Roll No. : _____ 230 / 13(

Objective
Paper Code
6198

Intermediate Part First

MATHEMATICS (Objective) Group – II

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.acf**

S.#	Questions	A	B	C	D
1	If n = 1, then value of n(n – 1)! is:	0	2	1	–1
2	$\frac{n^3+2n}{3}$ represents an / a:	Real number	Rational number	Irrational number	Integer
3	In the expansion of $(a+b)^7$, the 2nd term is:	a^7	$7ab^6$	$7a^6b^6$	$7a^6b$
4	$1^\circ =$:	$\frac{180}{\pi}$ radian	$\frac{\pi}{180}$ radian	$\frac{1}{180\pi}$ radian	180π radian
5	$\sin 3x =$:	$4\cos^3 x - 3\cos x$	$3\cos^3 x - 4\cos x$	$3\sin x - 4\sin^3 x$	$4\sin x - 3\sin^3 x$
6	Range of sin x is:	[– 1 , 1]	(– 1 , 1)	[– 1 , 1)	(– 1 , 1]
7	If ABC be any triangle and $\gamma = 90^\circ$, then:	$a^2 - c^2 = b^2$	$a^2 + b^2 + c^2 = 0$	$a^2 + c^2 = b^2$	$a^2 + b^2 = c^2$
8	With usual notation area of triangle ABC is:	$\sqrt{(s-a)(s-b)(s-c)}$	$\frac{b}{a\sin\beta}$	$ab\sin\gamma$	$\frac{ac\sin\beta}{2}$
9	$\tan\left(\tan^{-1}(-1)\right) =$:	$\frac{\pi}{4}$	$\frac{-\pi}{4}$	–1	1
10	If $\sin x = \frac{1}{2}$, then x = :	$\frac{-\pi}{6}, \frac{-5\pi}{6}$	$\frac{-\pi}{6}, \frac{5\pi}{6}$	$\frac{\pi}{6}, \frac{5\pi}{6}$	$\frac{\pi}{3}, \frac{2\pi}{3}$
11	The set, S = { 1 } is closed under:	Multiplication	Addition	Subtraction	Division
12	$p \wedge \sim q$ is a / an:	Absurdity	Tautology	Inverse	Converse
13	If $A = \begin{bmatrix} x & 1 \\ 1 & 1 \end{bmatrix}$ and $\lvert A \rvert = 1$, then x = :	3	1	2	0
14	The matrix [a b c d] is a _____ matrix.	Square	Row	Unit	Null
15	For what value of K will equation $x^2 - Kx + 4 = 0$ have sum of roots equal to product of roots?	3	–2	–4	4
16	Which is a factor of $x^n + a^n$, $n \in O$?	x + a	x – a	x = 0	x – 2a
17	$\frac{p(x)}{x^2+1}$ will be proper fraction if degree of p(x) = :	1	4	2	3
18	No, term of the geometric sequence is:	1	0	2	–1
19	If two numbers are $3\sqrt{5}$ and $5\sqrt{5}$, then arithmetic mean will be:	$8\sqrt{5}$	$4\sqrt{5}$	$2\sqrt{5}$	$6\sqrt{5}$
20	${}^6P_4 =$:	3450	361	360	363