

GAT Subject Mathematics MCQ's Test

Sr	Questions	Answers Choice
1	If a cone is cut by a plane perpendicular to the axis of the cone then the section is a	A. Parabola B. Circle C. Hyperbola D. Ellipse
2	The range of inequality $x + 2 > 4$ is	A. $(-1,2)$ B. $(-2,2)$ C. $(1,\infty)$ D. None
3	120° degrees are equal to how many radians?	A. $\pi/3$ radians B. $2\pi/3$ radians C. $\pi/4$ radians D. $\pi/2$ radians
4	A relation in which the equality is true only for some values of the unknown variable is called	A. An identity B. An equation C. A polynomial D. Inverse function
5	$\text{Cse } \pi/3$	A. 2 B. 1 C. 0 D. $2/\sqrt{3}$
6	What is the domain of $y = \text{Sin}^{-1} x$?	A. $-1 \leq x \leq 1$ B. $1 \leq x \leq 1$ C. $0 \leq x \leq \pi/2$ D. $-\pi/2 \leq x \leq \pi/2$
7	The nth term in G.P 3,-6,12,..... is	A. 25, 20 B. 20, 10 C. 20, 5 D. 15, 10
8	$1+2+3+\dots+n=?$	A. $n(n+1)/2$ B. $n+1/2$ C. $n(n+1)(2n+1)/6$ D. n^3
9	There are 30 Red balls and 25 Green balls in a bag of a ball is drawn from the bag randomly what is the probability that a Blue ball comes out?	A. 1 B. 0.5 C. 0 D. None
10	$x^2 + 2x - 25 = 0$ is	A. 1 B. 2 C. 3 D. 4
11	$\text{Sin } 720^\circ = \underline{\hspace{2cm}}$	A. 1 B. 0 C. 2 D. $1/2$
12	What is the conjugate of $-7 - 2i$?	A. $-7 + 2i$ B. $7 + 2i$ C. $7 - 2i$ D. $\sqrt{53}$
13	The curves $y = x^2$, $y = x$ interest at	A. $(0,0), (1,1)$ B. $(2,4)$ C. $(0,1), (2,4)$ D. $(0,3), (-1,1)$
14	If $A = [a_{ij}]$ and $b = [b_{ij}]$ are the matrices of the order 3×3 then $A - B =$	A. Circle B. Ellipse C. Parabola D. Hexagon
15	The number of ways in which we can courier 5 packets to 10 cities is	A. 2×5^0 B. 5^{10} C. 10^5 D. 2^{10}

16 If $C^n_r, P^n_r = 24:1$ then $r = ?$

A. 1
B. 2
C. 3
D. 4

17 $\int 1/ax + b \, dx =$

A. $1/a \log |ax + b| + c$
B. $\log |ax + b| + c$
C. $1/b \log |ax + b| + c$
D. $1/x \log |ax + b| + c$

18 The value of the polynomial $3x^3 + 4x^2 - 5x + 4$ at $x = -1$ is

A. $A^{²} + B^{²} + 2AB$
B. $A^{²} + B^{²} + 2AB$
C. $A + B$
D. $A^{²} + B^{²} + AB + BA$

19 If the diagonal of a square has coordinates (1,2) and (5,6) the length of a side is

A. 3
B. 4
C. 1
D. 5

20 A standard deck of 52 cards shuffled what is the probability of choosing the queen of the diamonds

A. $1/5$
B. $1/13$
C. $5/52$
D. $1/52$
