

## 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	$120^\circ$ 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	Cose $\pi/3$	A. 2 B. 1 C. 0 D. $2/\sqrt{3}$
6	What is the domain of $y = \sin^{-1} x$ ?	A. $-1 \leq x \leq 1$ B. $1 \leq x \leq 1$ C. $0 \leq x \leq \pi$ 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. $n^3/3$
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	$\sin 720^\circ =$ _____	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 $y = x^2$ , $y = x$ intersect 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 $3 \times 3$ 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. $2 \times 5^{10}$ B. $5^{10}$ C. $10^5$ D. $2^{10}$

16	If $C_r^n, P_r^n = 24:1$ 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. $A^2 + B^2$ B. $A^2 \cdot B^2 + B^2$ 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