


Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	A. quadratic function B. constant function C. linear function D. exponential function
2	A rectangular hyperbola whose centre is C is cut by any circle of radius r in four points P, Q, R and S. Then $CP^2 + CQ^2 + CR^2 + CS^2 =$	A. r^2 B. $2r^2$ C. $3r^2$ D. $4r^2$
3	Multiplicative inverse of 0 is	A. 0 B. 1 C. ± 1 D. Does not exist
4	In school there are 150 students Out of these 80 students enrolled for mathematics class 50 enrolled for English class and 60 enrolled for Physics class The student enrolled for English cannot attend any other class but the students of mathematics and Physics can take two courses at a time Find the number of students who have taken both physics and mathematics.	A. 40 B. 30 C. 50 D. 20
5	Identify w.r.t intersection in a power set of any set is	A. \emptyset B. Set itself C. Singleton set D. $\{0\}$
6	$\forall a \in R \exists o \in R$ such that $a + v = 0 + a = a$ is property of	A. Commutative law of addition B. Associative law of addition C. Additive identity D. Additive inverse
7	Which of the following sets is finite	A. The set of natural numbers between 3 and 10 B. The set of rational numbers between 3 and 10 C. The set of real numbers between 0 and 1 D. The set of rational numbers between 0 and 1
8	The middle term in the expansion of $(a + x)^{12}$ is	A. 7th B. 8th C. 9th D. 6th
9	The point of concurrency of the right bisectors of the sides of a triangle is called	A. incentre B. circum center C. e-center D. centroid
10	Question Image	D. none of these
11	Question Image	
12	The distance of the point (a,b) from y-axis is	A. a B. b C. a + b
13	Question Image	A. K/6 B. 2K C. 3K D. 6K
14	The velocity and acceleration at any point t of a particle which moves along straight line $x = 5t - 3$	A. 5,3 B. 5,-3 C. 5,0 D. 10,0
15	A person standing on the bank of a river observes that the angle of elevation of the top of a tree on the opposite bank of the river is 60° and when he retires 40 meters away from the tree the angle of elevation becomes 30° . The breadth of the river is	A. 40 m B. 30 m C. 20 m D. 60 m
16	Question Image	A. 6 B. 12

16		C. 20 D. 0
17	The number of subset of $\{0\}$ is	A. 1 B. 2 C. 3 D. None
18	A square matrix $A = [a_{ij}]$ is lower triangular matrix when:	A. $a_{ij} = 0$ for all $i \leq j$ B. $b_{ij} = 0$ C. $c_{ij} = 0$ D. $d_{ij} = 0$
19	The area between the x-axis and the curve $y = x^2 + 1$ from $x = 1$ to 2 is:	A. $15/6$ B. $15/4$ C. $10/4$ D. $10/3$
20	120° degrees are equal to how many radians?	