Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The product of cube roots of unity is	A. Zero B. 1 C. -1 D. None of these
2	$\forall a,b, c \, \varepsilon \, R \; ac = bc \Rightarrow a = b, c \neq 0$ is a	A. Symmetric property B. Cancellation property w.r.t multiplication C. Reflexive property D. Transitive property
3	Water seeps out of a conical filter at eh constant rate of 5 cm/sec. the height of the cone of water in the filter is 15 cm. the height of the filter is 20 cm and radius of the base is 10 cm. the rate at which the height of the water decreases is	
4	In a country 55% of the male population has houses in cities while 30% have houses both in cities and in villages find the percentage of the population that has houses only in villages	A. 45 B. 30 C. 25 D. 50
5	Maximum value of $z =15x +20y$ subject to $3x+ 4y \leq 12, x, y \geq 0$ is given by	A. 46 B. 60 C. 50 D. 70
6	If e, e' be the eccentricities of two conics $S=0$ and $S' =0$ and if $e^2 + e'^2 = 3$ then both S and S' can be	A. Hyperbola B. Parabolas C. Ellipses D. None of these
7	The middle term in the expansion of $(a +x)^{12}$ is	A. 7th B. 8th C. 9th D. 6th
8	If $z_1 = 1 + 2i, z_2 = 3 + 4i$ then	A. $z_1 > z_2$ B. $z_1 = z_2$ C. $z_1 < z_2$ D. None of these
9	The function sine and Cosine have the closed internal as their range	A. [1, 0] B. [-1, 1] C. [0, 1] D. [-1, 2]
10	A Geometric Series is divergent only if	A. $\lvert r \rvert > 1$ B. $\lvert r \rvert \geq 1$ C. $\lvert r \rvert = 1$ D. None of these
11	Inverse of the function y-10x is	A. y=logx B. y=lnx C. x=10y D. x=10y
12	The probability that the sum of dots appearing in two successive thrown of two dice, in every time 7 is	A. 1/5 B. 1/36 C. 1/7 D. 1/63
13	A circle drawn inside a triangle and touching its sides is called	A. In-circle B. Circum circle C. Escribed circle D. None of these
14	The fixed point from which all the points of a circle are equidistant is called the	A. chord of the circle B. centre of the circle C. diameter of the circle D. radius of the circle
		A. Infinite set

15	The set { {a,b} } is	B. Singleton set C. Two points set D. Empty set
16	Question Image	
17	Question Image	A. Commutative property of addition B. Closure property of addition C. Additive inverse D. Associative property w.r.t. to addition
18	Every real number is	A. a positive integer B. a rational number C. a negative integer D. a complex number
19	If A⊆ B, and B is a finite set, then	A. n (a) < n(B) B. n(B)<(A) C. n(A)≤ n (B) D. n(A)≥ n(B)
20	G = {e, a, b, c} is an Abelian group with e as identity element The order of the other elements are	A. 2,2,2 B. 3,3,3 C. 2,2,4 D. 2,3,4