Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	The value of x, and y, when $(x + iy)^2 = 5 + 4i$	A. X = 2, y = 1 B. X = -2, y = 1 C. X = 2, y = -1 D. X = 2, y = 2
3	The line $2x + \sqrt{6}y = 2$ is a tangent to the curve $x2 - 2y2 = 4$ The point of contact is	A. $(\sqrt{6},1)$ B. (2,3) C. $(7,-2\sqrt{6})$ D. $(4,-\sqrt{6})$
4	Question Image	A. Zero matrix B. Diagonal matrix C. Column matrix D. Scalar matrix
5	if the value of the sphere, $v = 4/3\pi r^2$, then the which of the following statement is true?	A. r is the function of v B. v is the function ofπ C. π is independent variable D. None of these
6	The surface generated by lines, consists of two parts, called:	A. vertex B. apex C. nappes D. axis
7	Question Image	
8	The null vector is regarded to be perpendicular to	A. Every vector B. In some cases C. Both a b D. None
9	Power set of X i.e P(X).....under the binary operation of union U	A. Forms a group B. Does not form a group C. Has no identity element D. Infinite set although X is infinite
10	Question Image	
11	Number of permutations of n distinct objects taken r(<n - 3) at a time which exclude 3(<n) particular objects is	A. 3! P(n, r - 3) B. P(n, 3) P(n, r - 3) C. P(r, r)P(n, r - 3) D. P(n - 3, r)
12	$\cos(\pi/2-\theta)$ = _____;	A. $\cos\theta$ B. $\sin\theta$ C. $-\cos\theta$ D. $-\sin\theta$
13	$\sin(\alpha+\beta) + \sin(\alpha-\beta)$	A. 2 sinαcosβ B. sin (2αβ) C. sinαcosα D. None of these
		A. images

14	Question Image	B. pre-images C. constants D. none of these
15	Find the next two terms of 7, 9, 12, 16,...	A. 18, 20 B. 19, 22 C. 20, 25 D. 21, 27
16	Question Image	
17	Question Image	
18	Question Image	
19	Let $P(x_1, y_1)$ and $Q(x_2, y_2)$ be two points in the co-ordinate plane. Let d = distance between P and Q	
20	Question Image	A. 1 B. 2 C. 3 D. 4