Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The central angle of an arc of a circle whose length is equal to the radius of the circle is called the	A. degree B. radian C. minute D. second
2	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	
3	What is the number of elements of the power set of { }	A. 0 B. 1 C. 2 D. 3
4	Question Image	A. -10 B. 10/7 C. -10/7 D. -7/10
5	$\sin^2\alpha\cos^2\alpha=$	A. -1 B. 0 C. 1 D. None of these
6	The first three terms in the expansion of $(1 + x)^3$ are	A. 1 + 3x +6x² B. 1- 3x + 6x²\ C. -3 -3x -6x² D. 1- 3x -6x²
7	The unit vector along z-axis is	D. none of these
8	Question Image	
9	If$\|a\| =\|b\| = \|a+b\|=1$, then$\|a-b\|$ is equal to:	A. 1 B. $\sqrt{3}$ C. $\sqrt{2}$ D. 7
10	The length of perpendicular from (3,1) to 4x +3y +20 =0 is	A. 6 B. 7 C. 3 D. 8
11	Question Image	A. y : x B. x : y C. -y : x D. -x : y
12	$\tan270° =$_____;	A. 0 B. 1 C. -1 D. Undefined
13	Question Image	A. Scalar matrix B. Identity matrix C. Null matrix D. Symmetric matrix
14	$\sin[\cot^{-1}\{\cos(\tan^{-1}x)\}]=$	
15	A function whose range is just one elements is called	A. One-one function B. Constant function C. Onto function D. Identity function
16	If u = 2a$\underline{i}$ +$\underline{i}$ - $\underline{k}$ and$\underline{v}$ = $\underline{i}$ +a$\underline{i}$+ 4$\underline{k}$ are perpendicular then a =	A. 4 B. 1/2 C. 3 D. 4/3
17	A circle passing through the vertices of any triangle is called _____	A. In circle B. Circum circle C. Escribed circle D. None of these

18	Fifteen girls compete in a race. The first three places can be taken by them in	A. 3! ways B. 12! ways C. 15 x 14 x 13 ways D. 42 ways
19	Question Image	
20	Question Image	