

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If $\underline{u}=[3,-4]$ , then modulus of $\underline{u}$ is:	A. 5 B. 5i C. -5 D. $\sqrt{5}$
2	Question Image	
3	Question Image	
4	The point of contact of the circles $x^2 + y^2 - 6x - 6y + 10 = 0$ and $x^2 + y^2 = 2$ is	A. (-3, 2) B. (1, 3) C. (-2, -1) D. None of these
5	The identity element of a set X with respect to intersection in P(x) is	A. X B. Does not exist C. $\emptyset$ D. None of these
6	The angle between the vectors $3i + j - k$ and $2i - j + k$ is	
7	Range if $y = \cos x$ is	A. $-1 \leq y \leq 1$ B. $-1 < y < 1$ C. $-\infty < x < +\infty$ D. None of these
8	The set $\{-1, 1\}$ is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
9	$\sin^{-1}[-1/2] = \underline{\hspace{2cm}}$	
10	Question Image	
11	If $b^2 - 4ac = 0$ then the roots of the equation are	A. Real and distinct B. Real and equal C. Imaginary D. None of these
12	Question Image	A. $\cos x$ B. $\sec x \tan x$ C. $\sec^2 x$ D. $-\operatorname{cosec}^2 x$
13	The set of positive integers, 0 and negative integers is known as the set of	A. Natural numbers B. Rational numbers C. All integers D. Irrational numbers
14	Question Image	A. $45^\circ$ B. $30^\circ$ C. $75^\circ$ D. $60^\circ$
15	$3x + 4 \leq 0$ is	A. not inequality B. equation C. identity D. inequality
16	A bag contains 7 whit, 5 black and 4 rd balls. If two balls are drawn at random from the bag, the probability that they are not of the same color is	A. 73 / 120 B. 83 / 120 C. 67 / 120 D. 43 / 120
17	Question Image	
18	The vector $i = [1,0]$ is called unit vector along:	A. x-axis B. y - axis C. z- axis D. Both a and y-axis
		A. incentre

19 The point of concurrency of the medians of a triangle is called

- B. circumcentre
- C. e-centre
- D. centroid

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20  $\sec 30^\circ = \underline{\hspace{2cm}}$

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