

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Projection of vector u along v is	A. $ v \cos \theta$ B. $ u \cos \theta$ C. $ v \sin \theta$ D. $ u \sin \theta$
2	An integer is chosen at random from the number ranging from 1 to 50. the probability that the integer chosen is a multiple of 2 or 3 or 10 is	A. $3/10$ B. $5/10$ C. $7/10$ D. $9/10$
3	Which is an explicit function	A. $y = x^{2/2} + 2x - 1$ B. $x^{2/2} + xy + y^{2/2} = 2$ C. $x^{2/2} + y^{2/2} = xy + 2$ D. All are
4	If $y = \sin(ax + b)$, then fourth derivative of y with respect to $x =$	A. $a^4 \cos(ax + b)$ B. $a^4 \sin(ax + b)$ C. $-a^4 \sin(ax + b)$ D. $a^4 \tan(ax + b)$
5	Question Image	A. 0 B. -1 C. 1 D. -2
6	An ellipse slides between two lines at right angles to one another. The locus of its centre is :	A. a parabola B. an ellipse C. a circle D. a hyperbola
7	$\sec h x =$ _____	
8	If ${}^6P_r = {}^6P_{r+1}$, then r is equal to	A. 4 B. 3 C. 2 D. 1
9	If n is any positive integer then $n! > n^2$ for	
10	The slope of the normal at $(4,3)$ to the circle $x^2 + y^2 = 25$ is	A. $3/4$ B. $-3/4$ C. $4/3$ D. $-4/3$
11	$45^\circ =$ _____	
12	If $x^2 - 7x + a$ has remainder 1 when divided by $x + 1$, then $a =$ _____	A. -7 B. 7 C. 0 D. None of these
13	If $2x + y + \lambda = 0$ is normal to parabola $y^2 = -8x$, $\lambda =$ _____	A. 12 B. 8 C. 24 D. -24
14	Name the property used in $100 + 0 = 100$	A. Additive inverse B. Multiplicative inverse C. Additive identity D. Multiplicative identity
15	A line joining two distinct points on a parabola is called a _____ of the parabola.	A. Chord B. Tangent C. Latus rectum D. directrix
16	The square matrix A is skew-symmetric when $A^t =$	A. $-B$ B. $-C$ C. $-A$ D. $-D$

17	Find a if 1 is a root of the equation $x^2 + ax + 2 = 0$	B. -3 C. 2 D. 0
18	The eccentricity of the conic $9x^2 - 16y^2 = 144$ is	A. 4/5 B. 5/4 C. 4/3 D. 3/4
19	QUQ'	
20	The physical quantity which can be specified by a number alongwith unit is called a	A. scalar B. vector C. constant D. none of these