

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If $s = 2t^3 - 3t^2 + 15t - 8$ is the equation of motion of a particle, then its initial velocity is	A. 8 B. 15 C. -6 D. None
2	The number of terms in the expansion of $(a + b)^9$ is	A. 10 B. 11 C. 9 D. 12
3	$i^9 =$	A. i^{20} B. -1 C. 1 D. i
4	If A and B are two matrices such that $AB = B$ and $BA = A$, then $A^2 + B^2 =$	A. 2 AB B. 2 BA C. A + B D. AB
5	Question Image	
6	If $\sin(\pi \cos \theta) = \cos(\pi \sin \theta)$, then which of the following is correct?	
7	The range of the tangent function is	A. all real numbers B. $-1 \leq x \leq 1$ C. natural number D. $z^{sup} + </sup>$
8	Which of the following represents a vector	D. (x, y)
9	If $a, b = 0$ then	A. $a \parallel b$ B. $a \perp b$ C. $a = b$ D. None
10	$s > t$ then	A. $(s - t)^{2} > (t - s)^{2}$ B. $(s - t)^{2} < (t - s)^{2}$ C. $(s - t)^{2} = (t - s)^{2}$ D. None
11	Question Image	
12	$f(x) = x^3$ is:	A. an odd function B. an even function C. an implicit function D. a quadratic function
13	$\cos^2 x + \sin^2 x$	A. an even function B. an odd function C. an even and implicit function D. neither even nor a odd
14	For all points (x,y) on x-axis	A. x is positive B. x is negative C. y = 0 D. y is negative
15	A quadrilateral whose diagonals are perpendicular bisector of each other is	A. Square B. Rectangle C. Rhombus D. Parallelogram E. Trapezium
16	A chord passing through the centre of the circle is called	A. the secant of the circle B. the tangent of the circle C. the arc of the circle D. the diameter of the circle
		A. [1, -1]

17 The range of $y = \sin x$ is _____

- B. [-1, 1]
- C. [0, -1]
- D. [-<i></i><i></i>

18 Question Image

19 Question Image

- A. The law of sines
- B. The law of tangents
- C. The law of cosines
- D. None of these

20 Equation of normal to the circle $x^2 + y^2 = 25$ at $(5\cos\theta, 5\sin\theta)$

- A. $x\cos\theta + y\sin\theta = 5$
- B. $x\cos\theta - y\sin\theta = 0$
- C. $x\sin\theta - y\cos\theta = 0$
- D. None of these