

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If a force $F = 2i + j + 3k$ acts at point $(1, -2, 2)$ of a body then the moment of F about a pint lying on the line of action of the force is	A. 5 B. Equal to the moment of the force about origin C. 0 D. Cannot be found
2	The probability that a slip of numbers divisible by 4 is picked from the slips of number 1,2,3,4,.....10 is	A. 1/5 B. 2/5 C. 1/10 D. 3/10
3	The nth term of a G.P. is	A. $a^{n-1}r^n$ B. $a^{n-1}r^{n+1}$ C. $a^{n-1}r^{n-1}$ D. $a^{n-1}r^{-n}$
4	Question Image	D. none of these
5	Period of $\sin x$ is	
6	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. $a^4 \tan(ax + b)$
7	Question Image	A. $\sec x \tan x$ B. $\cos^2 x$ C. $\sin^2 x$ D. $\sec^2 x$
8	The locus of the centre of a circle which touches two given circles externally is:	A. a hyperbola B. an ellipse C. a circle D. a parabola
9	$f(x) = C$ is	A. identity function B. constant function C. linear function D. quadratic function
10	The point lying on the terminal rat of -270° is	A. (1,0) B. (0,-1) C. (0,1) D. (-1,0)
11	Which of the following is a scalar.	A. force B. frequency C. weight D. acceleration
12	Question Image	
13	The perpendicular bisector of any chord of a circle	A. Passes through the centre of the circle B. Does not pass through the centre of the circle C. May or may not pass through the centre of the circle D. None of these
14	Question Image	
15	$\tan^{-1}(1/4) + \tan^{-1}(2/9)$ is equal to	A. $\frac{1}{2} \cos^{-1}(3/5)$ B. $\frac{1}{2} \sin^{-1}(3/5)$ C. $\frac{1}{2} \tan^{-1}(3/5)$ D. $\tan^{-1}(1/2)$
16	If the angle between two vectors \underline{u} and \underline{v} is 0 or π , then the vectors \underline{u} and \underline{v} are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
17	$\tan(-135^\circ) = \theta$	A. 0 B. 1 C. 2

18 The number of permutations of n objects of which there are n_1 like of one kind, n_2 like of the second kind and n_3 like objects of third kind are

- A. 20
B. 17
C. 25
D. 30

20 Question Image