

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	A. Symmetric B. Skew-symmetric C. Hermitian D. Skew hermitian
2	The process of finding a function whose derivative is given is called a	A. Differentiation B. Integration C. Differential D. None
3	Question Image	A. Does not exist because f is unbounded B. Is not attained even though f is bounded C. Is equal to 1 D. Is equal to -1
4	If in a set of real no a is additive identity then	A. $a+a = 2a$ B. $a+a = 1$ C. $a+a = 0$ D. None of these
5	If the cutting plane is parallel to the axis of the cone and intersects both of its nappes, then the curve of intersection is	A. an ellipse B. a hyperbola C. a circle D. a parabola
6	{1, 2, 3} is _____	A. an infinite set B. A finite set C. A singleton set D. Universal set
7	Question Image	A. -1 B. 0 C. 1 D. undefined
8	$w^73 =$ _____	A. 0 B. 1 C. w D. $w^{²}$
9	A machine operates if all of its three components function. The probability that the first component fails during the year is 0.14, the second component fails is 0.10 and the third component fails is 0.05. the probability that the machine will fail during the year is	A. 0.2647 B. 0.2692 C. 0.3647 D. None of these
10	$f(x) = C$ is	A. identity function B. constant function C. linear function D. quadratic function
11	The approximate percentage increase in the volume of a cube if the length of its each edge changes from 5 to 5.02 is	A. 1.2% B. 1.5% C. 0.16% D. 100.16%
12	Question Image	
13	The slope of the tangent of the circle $x^3 + y^3 = 25$ at (4,3) is:	A. -4/5 B. 4/3 C. -25/4 D. 25/3
14	Z is the set of integers, $(z, *)$ is a group with $a * b = a + b + 1$, $a, b \in G$. then inverse of a is	A. -a B. a + 1 C. -2 -a D. None of these
15	Question Image	A. π B. $\pi / 2$ C. $\pi / 3$ D. $\pi / 4$

16 Period of $\sin x$ is

17 Question Image

- A. 3, -3, 11
- B. 3, 3, 11
- C. -3, 3, -11
- D. -3, -3, 11

18 A and B throw a dice. The probability that A's throw is not greater than B's is

- A. $\frac{5}{12}$
- B. $\frac{7}{12}$
- C. $\frac{1}{6}$
- D. $\frac{1}{2}$

19 Product of any n consecutive positive integers is divisible by

- A. n
- B. \sqrt{n}
- C. $n!$
- D. None

20 The equation of the directrix of the parabola $x^2 = 4ay$ is

- A. $x + a = 0$
- B. $x - a = 0$
- C. $y + a = 0$
- D. $y - a = 0$