

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	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
2	The distance between the points (0, 0) and (1, 2) is	A. 5 C. 0 D. 3
3	Question Image	A. (-1, 2) B. (-1, 1) C. (1, 2) D. {-1}
4	Question Image	
5	The number of combinations of 10 different objects taken 8 objects at a time is	A. 90 B. 45 C. 55 D. 50
6	Question Image	
7	If a_1 and r are the first term and the common ratio respectively then $(n + 1)$ th term of the G.P. is	A. 0 B. $a ₁ r ⁿ⁻¹$ C. $a ₁ r ⁿ⁺¹$ D. $a <sub>1</sub> r <sup>n</sup>$
8	If $f(x) = \cos x$ then $f(0)$ is	A. 0 B. 1 C. 1/2
9	Question Image	A. 0.9 B. 0.74 C. 0.2016 D. None of these
10	Question Image	D. None of these
11	The multiplicative inverse of $1 - 2i$ is	
12	The set of real numbers is a subset of	A. The set of natural numbers B. The set of rational numbers C. The set of integers D. The set of complex numbers
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	If $\underline{u} = [3, -4]$, then modulus of \underline{u} is:	A. 5 B. 5i C. -5 D. $\sqrt{5}$
15	$150^\circ =$ _____	
16	A matrix in which the number of rows is equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix C. Square matrix D. Scalar matrix
17	The modulus of $12 - 5i$ is:	A. 7 B. 13 C. $\sqrt{7}$ D. 119
18	If one end of the diameter of the circle $x^2 + y^2 - 5x + 3y - 22 = 0$ is (3, 4) the other end is:	A. (2, 7) B. (-2, -7) C. (-2, 7) D. (2, -7)

D. $(2, -1)$

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If $f(x) = x^3 - 2x^2 + 4x - 1$ then $f(0)$ is

- A. 0
- B. 1
- C. -1
- D. none of these

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The towers each 120 meters high are 800 meters apart. The measure of the angle of elevation from the base of one tower to the top of the other is

- A. 12°
- B. 9°
- C. 7°
- D. -120°