

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	<input type="text" value="Question Image"/>	D. none of these
2	Three dice are thrown together. The probability of getting a total of at least 6 is	A. $\frac{103}{108}$ B. $\frac{10}{216}$ C. $\frac{93}{108}$ D. None of these
3	<input type="text" value="Question Image"/>	D. none of these
4	<input type="text" value="Question Image"/>	
5	$(a-1)-1 =$	A. a-1 B. a C. -a D. None of above
6	An infinite sequence has no	A. nth term B. Last term C. Sum D. None of these
7	<input type="text" value="Question Image"/>	A. C^r B. C^{r+1} C. C^{r+1} D. None
8	The period of the function $f(x) = \sin^4 x + \cos^4 x$ is	A. π B. $\frac{\pi}{2}$ C. 2π D. None of these
9	<input type="text" value="Question Image"/>	A. $\cos x$ B. $\sec x \tan x$ C. $\sec^2 x$ D. $-\operatorname{cosec}^2 x$
10	The law of cosines reduces to $a^2 + c^2 = b^2$ for	A. $\alpha = 90^\circ$ B. $\beta = 90^\circ$ C. $\gamma = 90^\circ$ D. $\alpha + \beta + \gamma = 180^\circ$
11	If $a \neq 0, b \neq 0$ and $ a \cdot b = a \cdot b $, then vectors a and b are:	A. Parallel to each other B. Perpendicular to each other C. Inclined at 60° D. neither parallel nor perpendicular
12	<input type="text" value="Question Image"/>	
13	A and B be two square matrices and if their inverse exist, the $(AB)^{-1} =$	A. $A^{-1} B^{-1}$ B. AB^{-1} C. $A^{-1} B$ D. $B^{-1} A^{-1}$
14	<input type="text" value="Question Image"/>	A. A B. A' C. U D. U'
15	If $c = 2i + j + k$ and $d = -i + 4j + 2k$, then $[c \cdot d] =$	A. $\sqrt{7}$ B. $\sqrt{41}$ C. $\sqrt{19}$ D. $\sqrt{20}$

16 The point (x_1, y_1) lies outside the circle $x^2 + y^2 + 2gx + 2fy + c = 0$ if

17 Which of the following is a factor of $x^3 - 3x^2 + 2x - 6$

- A. $x + 2$
- B. $x + 3$
- C. $x - 3$
- D. $x - 4$

18 Question Image

19 The area between the x-axis and the curve $y = x^2 + 1$ from $x = 1$ to 2 is:

- A. $15/6$
- B. $15/4$
- C. $10/4$
- D. $10/3$

20 Question Image