

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The set of all antiderivatives of $f(x)$ is the	A. Definite integral B. Indefinite integral C. Integral D. Area
2	Question Image	A. At B. -A C. A D. A-1
3	$\cos(\alpha + \beta) + \cos(\alpha - \beta) =$	A. $4 \cos \alpha \cos \beta$ B. $2 \cos \alpha \cos \beta$ C. $2 \sin \alpha \sin \beta$ D. $2 \sin \alpha \cos \beta$
4	If there are m rows and n columns in a matrix then its order is	A. $m \times n$ B. $m \times m$ C. $n \times n$ D. $n \times m$
5	The solution set of the equation $1 + \cos x = 0$ is _____	D. none of these
6	Consider the equation $px^2 + qx + r = 0$ where p, q, r are real The roots are equal in magnitude but opposite in sign when	A. $q = 0, r = 0, p \neq 0$ B. $p = 0, qr \neq 0$ C. $r = 0, pq \neq 0$ D. $q = 0, pq \neq 0$
7	The general value of θ satisfying the equation $2 \sin^2 \theta - 3 \sin \theta - 2 = 0$ is	
8	If the roots of $x^2 + ax + b = 0$ are non-real, then for all real x , $x^2 + ax + b$ is	A. Negative B. Positive C. Zero D. Nothing can be said
9	If $a = 2i + 2j$, $b = 3i - j$ and $c = 4i + 5j$, the $3b - a - 2c =$	A. $-i - 15j$ B. $i - 15j$ C. $i - 3j$ D. None of these
10	The longer side of a parallelogram is 10 cm and the shorter is 6 cm. If the longer diagonal makes an angles 30° with the longer side, the length of the longer diagonal is	
11	120° degrees are equal to how many radians?	
12	Question Image	
13	π is _____	A. A complex number B. A rational number C. A natural number D. An irrational number
14	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. $B^{-1} A^{-1}$
15	$\csc(-\pi/2) =$ _____;	A. 0 B. 1 C. -1 D. Undefined

16 The domain of the function $y = \sin x$, is

- A. $-\pi/2 \leq x \leq \pi/2$
- B. $\pi/2 \leq x \leq \pi$
- C. $-2\pi \leq x \leq 2\pi$
- D. $-1 \leq x \leq 1$

17 If x is an image of y under the function f . This can be written as

- A. $y = f(x)$
- B. $f(x) = 0$
- C. $x = f(y)$
- D. $f(y) = 0$

18 Question Image

19 Question Image

- A. 0
- B. 1
- C. 1/2

20 Question Image