

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If $f(x) = x^2 - x$ then $f(1)$ is	A. 0 B. 1 C. 2 D. 3
2	In ladder leaning against a vertical wall makes an angle of $24^\circ$ with the wall, its foot is 5m from the wall, its length is	A. 5.47m B. 2m C. 7m D. 6.29m
3	QUQ'	
4	The matrix $A = [a_{ij}]_{m \times n}$ with $m \neq n$ is	A. Rectangular B. Symmetric C. Square D. None
5	The slope of the tangent of the circle $x^2 + y^2 = 25$ at $(4,3)$ is:	A. $-4/5$ B. $4/3$ C. $-25/4$ D. $25/3$
6	If $a_n = 2n - 3$ , write the first four terms	A. -3, -1, 1, 3 B. 1, 3, 5, 7 C. -1, 1, 3, 5 D. None of these
7	$n(n - 1)(n - 2) \dots (n - r + 1) = \underline{\hspace{2cm}}$	
8	In $\mathbb{R}$ , the multiplicative identity is	A. 0 B. 1 C. -1 D. None
9	The unit vector along x-axis is	D. none of these
10	Question Image <input type="text"/>	B. 0 C. 1 D. undefined
11	$\tan 294^\circ = \underline{\hspace{2cm}}$ ;	A. $\tan 24^\circ$ B. $-\tan 24^\circ$ C. $\cot 24^\circ$ D. $-\cot 24^\circ$
12	The set $\{\mathbb{Z} \setminus \{0\}\}$ is group w.r.t	A. Addition B. Multiplication C. Division D. Subtraction
13	$i^{101} =$	A. i B. $i^2$ C. -i D. -1
14	Question Image <input type="text"/>	
15	If A is a skew-symmetric matrix of order n and P, any square matrix of order n. prove that $P^T A P$ is	A. Skew-symmetric B. Symmetric C. Null D. Diagonal
16	The two different parts of the hyperbola are called its	A. Vertices B. Directrices C. Nappes D. Branches
17	Question Image <input type="text"/>	A. $-2x \cos x$ B. $-2x^2 \sin x$ C. $-x^2 \sin x$ D. $-2x^2 \sin x$

18 If 2 and 2 are x and y components of vector then its angle with x-axis is

- A. 45
- B. 45
- C. 60
- D. 90

19 A number A is said to be the A.M between the two numbers a and b if a, A, b are in

- A. A.M
- B. A.P
- C. G.P
- D. G.M

20  $i^{(4n+2)} =$  .....

- A. 1
- B. i
- C. -1
- D. -i