

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	$1/3$ is _____	A. A prime number B. An integer C. A rational number D. An irrational number
2	Question Image	A. Imaginary B. Rational C. Irrational D. Real numbers
3	The period of $3 \sin x$ is	A. $2\pi$ B. $9\pi$ C. $3\pi$ D. $5\pi$
4	Question Image	
5	Which of the following is an identity matrix?	D. none of these
6	The equation of the sphere thro' the origin and making intercepts a, b, c on co-ordinate axes is	A. $x^2 + y^2 + z^2 + ax + by + cz = 0$ B. $x^2 + y^2 + z^2 - 2ax - 2by - 2cz = 0$ C. $x^2 + y^2 + z^2 = a + b + c$ D. $x^2 + y^2 + z^2 - ax - by - cz = 0$
7	Question Image	
8	$e$ is a	A. variable B. Positive constant C. Positive variable D. Directrix
9	If A and B are skew-symmetric then $(AB)^t$ is	A. At Bt B. AB C. -AB D. BA
10	Question Image	
11	The transport of a rectangular matrix is a	A. Square matrix B. Rectangular matrix C. Row matrix D. Column matrix
12	The familiar plane curves, namely circle, ellipse, parabola and hyperbola are called:	A. cones B. conics C. nappes D. apex
13	$\forall a, b, c \in \mathbb{R}, a > b \wedge b > c \Rightarrow a > c$ is	A. Trichotomy property B. Transitive property C. Symmetric property D. Additive property
14	For any set X, $X \cup X$ is	A. X B. $X'$ C. $\Phi$ D. Universal Set
15	For any set B, $B \cup B'$ is	A. Is set B B. Set B' C. Universal set D. None of these
16	If $A = \{x/x \text{ is a positive integer and } 4 \leq x < 23\}$ , then $A =$	A. $\{1, 2, 3, 4, 5, 6, 7\}$ B. $\{4, 5, 6, \dots, 22\}$ C. $\{1, 2, 3, \dots, 23\}$ D. $\{1, 2, 3, 4, 5\}$
17	$\cos^{-1} 12/13 =$	A. $\tan^{-1} 3/5$ B. $\cot^{-1} 13/12$ C. $\sec^{-1} 13/12$ D. $\csc^{-1} 13/12$


C.  $\sec^{-1} 13/12$   
D.  $\sin^{-1} 5/13$

18 The equation of the normal to the circle  $x^2 + y^2 = 25$  at (4, 3) is

- A.  $3x - 4y = 0$   
B.  $3x - 4y = 5$   
C.  $4x + 3y = 5$   
D.  $4x + 3y = 25$

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D. none of these

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- C.  $2x$   
D. 2