









## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1		D. none of these
2		
3	Which one is not defined $\forall n \in \mathbb{Z}^+$	A. $-n!$ B. $n!$ C. $(-n)!$ D. $n!+0!=n!+1$
4	A box containing 10 mangoes out of which 4 are rotter. Two mangoes are taken together from the box. If one of them is found to be good, the probability that the other is also good is	A. $1/3$ B. $8/15$ C. $5/13$ D. $5/9$
5		A. $(1, 7/3)$ B. $(1, 7/5)$ C. $(1, 11/7)$ D. $(1, 3/5)$
6	Period of $\cos x$ is _____	
7	If the cutting plane is parallel to the axis of the cone and intersects both of its nappes, then the curve of intersection is	A. an ellipse B. a hyperbola C. a circle D. a parabola
8		
9		
10		A. Trichotomy property B. Additive property of inequality C. Transitive property D. Multiplicative property
11		A. 1 B. $-i$ C. $i$ D. 0
12	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
13	The roots of the equation $4x^2 - 3.2x + 32 = 0$ would include	A. 1 and 3 B. 1 and 4 C. 1 and 2 D. 2 and 3
14	The range of $y = \sin x$ is _____	A. $[1, -1]$ B. $[-1, 1]$ C. $[0, -1]$ D. $[-\infty, \infty]$
15	$(7, 9) + (3, -5) =$	A. $(4, 4)$ B. $(10, 4)$ C. $(9, -5)$ D. $(7, 3)$
16		
17	$f(x) = 2x^2 + 1$ is	A. an even function B. an odd function

17  $f(x) = 3x^2 + 1$  is:

- C. an even and implicit function
- D. neither even nor a odd

18 Which of the following is the subset of all sets?

19 Question Image

20 The vertex of the parabola  $(x \sin a - y \cos a)^2 = 4a(x \cos a + y \sin a)$  lies at

- A.  $(a \cos a, a \sin a)$
- B.  $(a, 0)$
- C.  $(\cos a, \sin a)$
- D.  $(0, 0)$