


## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	$\Phi$ set is the _____ of all sets	A. Subset B. Union C. Universal D. Intersection
2	The angle of elevation of a tower from a point A due south of it is $x$ and from a point B due east of A is $y$ . If $AB = 1$ , then the height $h$ of the tower is given by	
3	Question Image	
4	The only function which is both even and odd is	A. $f(x) = \alpha$ B. $f(x) = x$ C. $f(x) = 0$ D. Both A & B
5	The exact degree value of the function $\sin^{-1}(-\sqrt{3}/2)$ is	A. $70^\circ$ B. $50^\circ$ C. $90^\circ$ D. $60^\circ$
6	If A and B are two matrices such that $AB = B$ and $BA = A$ then $A^2 + B^2 =$	A. $2AB$ B. $2BA$ C. $A + B$ D. $AB$
7	Question Image	
8	If $(0, 0)$ and $(0, -1)$ are end points of a diameter, then the equation of the circle is	
9	The direction cosines of any normal to the $xy$ -plane are	A. $\langle 1, 0, 0 \rangle$ B. $\langle 0, 1, 0 \rangle$ C. $\langle 1, 1, 0 \rangle$ D. $\langle 0, 0, 1 \rangle$
10	if $A = \{x \in \mathbb{Q} \mid 0 < x < 1\}$ , the A is	A. Infinite set B. Finite set C. Set of rational numbers D. Set of real numbers
11	Identity w.r.t intersection in a power set of any set is	A. $\emptyset$ B. Set itself C. Singleton set D. $\{0\}$
12	The direction cosines of a line equally inclined with co-ordinate axes are	
13	Question Image	A. 5 B. 10 C. 20 D. 30
14	Rational number is a number which can be written as a terminating decimal fraction or a	A. Non-terminating decimal fraction B. Non-recurring C. Recurring decimal fraction D. a, b and c
15	The equation of a line parallel to the tangent to the circle $x^2 + y^2 = 16$ at the point $(2, 3)$ and passing thro' the origin is	A. $2x + 3y = 0$ B. $2x - 3y = 0$ C. $3x + 2y = 0$ D. $3x - 2y = 0$
16	Question Image	A. 1, 2, 3 B. 1, 5, 9 C. 2, 5, 8 D. 3, 6, 9
17	The constant distance of all points of the circle from its centre is called the	A. Radius of the circle B. Secant of the circle C. Chord of the circle D. Diameter of the circle
18	Question Image	

A.  $\geq 0$

19 If S is a sample space and event set  $E = \Phi$  then  $P(E)$  is

- B. 1
- C.  $<1$
- D. 0

20 

- A. A
- B.  $A'$
- C. U
- D. None of these