



Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The conic is a parabola if	A. $e < 1$ B. $e > 1$ C. $e = 1$ D. None of these
2	A diagonal matrix in which the diagonal elements are equal is called a	A. Null matrix B. Identity matrix C. Scalar matrix D. Row matrix
3	Question Image	
4	The angle of depression of the point at a distance 70 meters from the foot of the tower from the top of the tower is 45° . The height of the tower is	A. 37m B. 97m C. 101m D. 70m
5	Which of the following function form 1 to itself are bi-jective	A. $F(x) = x + 3$ B. $F(x) = x^{5/2}$ C. $F(x) = 3x + 2$ D. $F(x) = x^{2/2} + x$
6	Co-ordinate of a point on the parabola $y^2 = 8x$ whose focal distance is 4 are:	A. (2, 4) B. (-2, -4) C. (-2, 4) D. (2, -4)
7	If $a_1 = 3$, $r = 2$, then the n th term of the G.P. is	A. 2.3^{n-1} B. 3.2^{n-1} C. 3.2^{n+1} D. 3.2^{n-1}
8	$f(x) = x $ is a/an	A. Injective function B. Bijective function C. Surjective function D. Implicit function
9	Let A, B, and C be any sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$ then	A. $A \neq C$ B. $B = C$ C. $A = B$ D. $A \neq B$
10	The square root of $2i - 20i$ is	A. $\pm(5 - 2i)$ B. $\pm(5 + 2i)$ C. $(5 - 2i)$ D. None of these
11	Two positive integers whose sum is 30 and their product will be maximum are	A. 12, 18 B. 10, 20 C. 15, 15 D. 14, 16
12	Question Image	
13	Question Image	A. The law of sines B. The law of tangents C. The pythagorus theorem D. None of these
14	If $a + b + c = 0$ then which of the following is true	A. $a = b = c = 0$ B. $a, b = b, c = c, a$ C. $a \times b = b \times c = c \times a$ D. None
15	The number of standard parabolic functions are is	A. 4 B. 2 C. 3 D. 1
16	The number of combinations of 10 different objects taken 8 objects at a time is	A. 90 B. 45 C. 55 D. 50

17 The fifth term of the sequence $a_n = 2n + 3$ is _____

- A. 13
- B. -13
- C. 8
- D. 3

18 

19 

20 Which of the following sets has closure property w.r.t. addition

- A. { 0 }
- B. { 1 }
- C. { 0, -1 }
- D. { 1, -1 }