

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The multiplicative inverse of -1 in the set {1-, 1} is	A. 1 B. -1 C. 0 D. Does not exist
2	$(1 + 2x)^4 =$ _____	A. $1 + 4x + 6x^2 + 4x^3 + x^4$ B. $1 - 4x + 6x^2 - 4x^3 + x^4$ C. $1 - 8x + 24x^2 - 32x^3 + 16x^4$ D. $1 + 8x + 24x^2 + 32x^3 + 16x^4$
3	Question Image <input style="width: 100%; height: 15px;" type="text"/>	
4	$5x^3 + 3x -$ is a _____	A. Polynomial of degree 3 B. Polynomial of degree 2 C. Polynomial of degree 1 D. Polynomial of degree 0
5	If $f(x) = x^3 - 2x^2 + 4x - 1$ then $f(2)$ is	A. 7 B. -16 C. 16 D. -9
6	The equation $x^2 + y^2 = 0$ represents	A. A circle B. A degenerate circle C. An empty set D. A st. line
7	$\cot 45^\circ =$ _____	
8	A man of height 6 ft observes the top of a tower and the foot of the tower at angles of 45° and 30° of elevation and depression respectively. The height of the tower is	
9	If distance between $(a, 2)$ and $(0, 0)$ is 2 then $a =$ _____	A. 0 B. 2 C. 4
10	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. $A = B$ B. $B = C$ C. $A = C$ D. None of these
11	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. $\sec 5x + c$ B. $-\sec 5x + c$
12	Two cards are drawn at random without replacement. the probability that the first is a king and second is not a king is	A. $48 / 663$ B. $24 / 663$ C. $12 / 663$ D. None of these
13	The longer side of a parallelogram is 10 cm and the shorter is 6 cm. If the longer diagonal makes an angles 30° with the longer side, the length of the longer diagonal is	
14	To each element of a group there corresponds _____ inverse element	A. Two B. One C. No D. Three
15	$i^3 =$	A. -1 B. i C. -i D. 1
16	$x = r \cos\theta, y = r \sin\theta$ are the parametric equations of	A. Circle B. Ellipse C. Parabola D. Hyoerbola
17	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. $1 + \tan^2 x + c$ B. $\tan x + c$ C. $-\tan x + c$ D. $\tan x + c$

D. $\cot x + c$

18 The number of combinations of 10 different objects taken 8 objects at a time is

- A. 90
- B. 45
- C. 55
- D. 50

19 nC_{n-r} is equal to

- A. $n!$
- B. $n-1Cr$
- C. nCr
- D. None of these

20 The mid point of the line segment joining the points (a,b) and (b,a) is
