

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The graph of linear equation $2x + 3y = 10$	A. Parabola B. Circle C. Hyperbola D. Straight line
2	For any set B, $B \cup B'$ is	A. Is set B B. Set B' C. Universal set D. None of these
3	If a particle moves according to the law $s = t^3 - t^2$, then its velocity at time $t = 1.5$ is	A. $9/2$ B. $15/4$ C. 5 D. None
4	If the roots of $ax^2 + bx + c = 0$ ($a > 0$) be greater than unity, then	A. $a + b + c = 0$ B. $a + b + c > 0$ C. $a + b + c < 0$ D. None of these
5	$(ABC)'$ =	A. CBA' B. CBA C. $C'B'A$ D. $C'B'A'$
6	Question Image <input style="width: 100%; height: 20px;" type="text"/>	B. $a^{\log x} \ln a + c$ C. $a^{\log x} + c$ D. $x a^{\log x} + c$
7	The number z so that the triangle with vertices $A(1, -1, 0), B(-2, 2, 1)$ and $C(0, 2, z)$ is a right triangle with right angle at vertex C	A. 1, 2 B. -1, -2 C. 2, -1 D. -2, 1
8	Question Image <input style="width: 100%; height: 20px;" type="text"/>	
9	The coefficient of the second term of $(a+b)^4$ is	A. 1 B. 9 C. 3 D. 5
10	Question Image <input style="width: 100%; height: 20px;" type="text"/>	A. $-\cot 4x + c$ B. $\cot 4x + c$ C. $\tan 4x + c$ D. $-\tan 4x + c$
11	If a, b, c are sides of a triangle taken in order then $a \times b =$	A. $b \times c$ B. $b \times a$ C. $c \times a$ D. Both a & b
12	Question Image <input style="width: 100%; height: 20px;" type="text"/>	
13	Eight chairs are numbered 1 to 8. Two women and three men wish to occupy one chair each. First, the women choose the chairs from amongst the chairs marked 1 to 4 and then the men select the chairs from amongst the remaining. The number of possible arrangement is	A. ${}^6P_3 \times {}^4P_2$ B. ${}^4P_2 \times {}^4P_3$ C. ${}^4P_2 \times {}^6P_3$ D. None of these
14	Question Image <input style="width: 100%; height: 20px;" type="text"/>	A. 0 B. -2 C. 1 D. 4
15	An equation which holds good for all values of variables is called	A. Equation B. Conditional equation C. Constant D. None
16	Z is a group under	A. Subtraction B. Multiplication C. Addition D. ...

D. None of these

17 Which of the following is factor of $p(x) = 2x^3 + 3x^2 + 3x + 2$?

- A. $x+1$
- B. $2x+1$
- C. $3x+1$
- D. $2x-1$

18 The set of points $\{(x,y) | y = f(x), \forall x \in \mathbb{R}\}$ is called

- A. Relation
- B. Graph of f
- C. Function
- D. All are correct

19 $A = B$ iff

- A. All elements of A also the elements of B
- B. A and B should be singleton
- C. A and B have the same number of elements
- D. If both have the same element

20 6 is

- A. A prime integer
- B. An irrational number
- C. A rational number
- D. An odd integer