

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The number of combinations of 10 different objects taken 8 objects at a time is	A. 90 B. 45 C. 55 D. 50
2	If $f:A \rightarrow B$ is an injective function and second elements of no two of its ordered pairs are equal, then f is called	A. 1-1 and onto B. Bijective C. 1-1 and into D. None of these
3	The radius of the circle $x^2 + y^2 - 6x + 4y + 13 = 0$, is	A. 1 B. 2 C. 0 D. None of these
4	Question Image <input type="text"/>	A. 3 x 2 B. 2 x 3 C. 3 x 3 D. 2 x 2
5	What is the number of elements of the power set of $\{0, 1\}$	A. 1 B. 2 C. 3 D. 4
6	$\sin(2\sin^{-1}0.8)$	A. 0.56 B. 0.69 C. -0.16 D. 0.96
7	The A.M. of two numbers is 34 and G.M. is 16, the numbers are	A. 2 and 64 B. 64 and 3 C. 64 and 4 D. None of these
8	Question Image <input type="text"/>	
9	The function discontinuous at $x = 0$ is (I) $\tan x$ (II) $\cot x$ (III) $\sec x$ (iv) $\operatorname{cosec} x$	A. I & III B. I & IV C. II & IV D. II & III
10	Question Image <input type="text"/>	
11	Which of the following is a vector.	A. energy B. force C. work D. power
12	a _____ quantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
13	Question Image <input type="text"/>	A. Addition B. Subtraction C. Multiplication D. None of these
14	The greatest term in the expansion of $(3+2x)^9$, when $x=1$ is	A. 4th B. 4th and 5th C. 5th D. 6th
15	Question Image <input type="text"/>	A. 2 and 9 B. 3 and 2 C. 2/3 and 9 D. 3/2 and 6
16	Sand falls from a tube in such a way that it forms a cone whose height is always $\frac{4}{3}$ times the radius of its base and radius of the base increases at the rate of $\frac{1}{8}$ cm/sec. When this radius is 1 meter, the rate at which the amount of sand increases is	A. $(n - 1)(n - 2) \dots 3, 2, 1$

- 17 If n is a positive integer then $n!$ is
- B. $n(n - 1)(n - 2) \dots 3 \cdot 2 \cdot 1$
C. $n(n - 1)(n - 2) \dots 3$
D. None of these
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- 18 The general solution of the differential equation $x \frac{dy}{dx} = 1 + y$ is:
- A. 2
B. 1
C. 3
D. None
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- 19 If in a set of real no a is multiplicative identity then
- A. $a, a = a^{\sup 2}$
B. $a, a = 1$
C. $a, a = 0$
D. None of these
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- 20 A disjunction of two statement p and q is true
- A. p is false
B. q is false
C. Both p and q are false
D. One of p and q is true