

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	A bag contains 5 white, 7 red and 5 black balls. If four balls are drawn one by one with replacement, the probability that none is white is	A. $(11/16)^2$ B. $(5/16)^2$ C. $(11/16)^4$ D. $(5/16)^4$
2	If a variable y depends on a variable x in such a way that each value of x determines exactly one value of y, then we say that	A. x is function of y B. y is a function of x C. y is independent variable D. x is real valued function
3	The number of terms in the expansion of $(a + x)^{12}$ is	A. 13 B. 12 C. 11 D. 10
4	The trigonometric function are continuous whenever	A. They are defined B. their limit exist C. Their period is given D. All are incorrect
5	Question Image	A. One-one but not onto B. One-one and onto C. Onto but not one-one D. Neither one-one nor onto
6	Name the property used in $a(b-c) = ab - ac$	A. commutative property of multiplication B. distributive property of multiplication C. associative property of multiplication D. multiplicative inverse
7	The graph of a quadratic function is	A. Circle B. Ellipse C. Parabola D. Hexagon
8	If the angle between two vectors \underline{u} and \underline{v} is 0 or π , then the vectors \underline{u} and \underline{v} are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
9	Question Image	
10	Question Image	A. 1760 B. -193 C. 223 D. none of these
11	Period of $\cos 2x$ is _____	
12	If a statement $S(n)$ is true for $n = i$ where i is some natural number and the truth of $S(n)$ for $n = k > i$ implies the truth of $S(n)$ for $n = k + 1$ then $S(n)$ is true for all positive integers	
13	Question Image	
14	Question Image	
15	Question Image	A. $\operatorname{cosec} x + c$ B. $-\operatorname{cosec} x + c$ C. $-\sec x + c$ D. $\sec x + c$
16	Question Image	
17	Question Image	A. Set of whole number B. Rational Numbers C. Complex numbers D. Whole numbers
18	99th term of the series $2 + 7 + 14 + 23 + 34 + \dots$ is	A. 9998 B. 9999 C. 10000 D. 10001

D. None of these

19 The sum of first n even number is

- A. n^2
- B. $n(n+1)$
- C. $n+1$
- D. $n+2$

20 If $Z = (1, 2)$, then $Z^{-1} = ?$

- A. $(0.2, 0.4)$
- B. $(-0.2, 0.4)$
- C. $(0.2, -0.4)$
- D. $(-0.2, -0.4)$