

ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	$\int x \cos dx$ is equal to :	A. $x \cos x + \sin x$ B. $\cos x + x \sin x$ C. $x \cos x + x \sin x$ D. $x \sin x + \cos x$
2	Question Image	
3	The line joining the center of a circle to the midpoint of the chord is	A. Perpendicular to the tangent B. Perpendicular to the normal C. Perpendicular to the chord D. Perpendicular to the chord
4	If $f(x) = x + 1$ then $f(z^2 - 1)$ is	A. $z^2 + 2$ B. $z^2 + 2$ C. $z^2 - 2$ D. none of these
5	The complement of set A relative to universal set U is the set	
6	Question Image	
7	Question Image	
8	Multiplicative inverse of "1" is	A. + - 1 B. 0 C. 1 D. None of these
9	Question Image	B. A C. A' D. U
10	Φ set is the _____ of all sets?	A. Subset B. Union C. Universal D. Intersection
11	Question Image	D. none of these
12	Question Image	A. $2x - 3x + c$ C. $x^2 - 3x + c$
13	The sum even binomial coefficient of $(3+2x)^5$ is _____ term	A. 16 B. 30 C. 8 D. 32
14	Two circles $x^2 + y^2 + 8x - 9 = 0$ and $x^2 + y^2 + 6y + k = 0$ touch internally if the value of k is	A. $k = 9$ B. $k = \pm 9$ C. $k = -9$ D. $k = 11$
15	The additive inverse of 0 is	A. 1 B. -1 C. 0 D. Does not exist
16	Question Image	A. Associate law of addition B. Commutative law of addition C. Additive identity D. Closure law of addition
17	Question Image	A. $2x \cos x^2$ B. $2 \sin x \cos x$ C. $-\sin x^2$ D. $2x \sin x^2$
18	Two cards are drawn at random without replacement. the probability that the first is a king and second is not a king is	A. $\frac{48}{663}$ B. $\frac{24}{663}$ C. $\frac{12}{663}$ D. None of these
		A. $x^2 + 2x + 2$

19 If $-1 < x < 0$, which of the following statements must be true?

- x^3
- $x & x^3$
- x^2
- $x^2 & x$
- $x^2 & x^3$

20 The complement of set A relative to universal set U is the set

- $\{x / x \in A \wedge x \in U\}$
- $\{x / x \notin A \wedge x \in U\}$
- $\{x / x \in A \text{ and } x \notin U\}$
- $A - U$