

## ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
2	The projection of $-2i + 3j + 7k$ on $2j + k$ is	A. $13/5$ B. $13/4$ C. $13/\sqrt{5}$ D. $13$
3	1st four terms of the expansion $(1-x)^{-2}$ are	A. $1 + 2x + 3x^2 + 4x^3$ B. $3x^2 + 2x + 1$ C. $1 + 3x + 4x^2 + 5x^3$ D. None of these
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
6	$\cot \theta = \sin 2\theta$ if $\theta =$	
7	The period of $\sin x/2 = \cos x/3$ is	A. $2\pi$ B. $12\pi$ C. $13\pi$ D. $7\pi$
8	If the centre of the circle is the origin, then equation of the circle is	A. $x^2 + y^2 = 0$ B. $2gx + 2fy - c = 0$ C. $x^2 + y^2 = r^2$ D. $gx + fy - c/2 = 0$
9	In the expansion of $(a + x)^n$ the sum of exponents of $a$ and $x$ in each term of the expansion is	A. $n + 1$ B. $n - 1$ C. $n$ D. $2n$
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Singleton set B. A set with two points C. Empty set D. None of these
11	If $A$ is an event then which of the following is true	A. $P(A) < 0$ B. $0 \leq P(A) \leq 1$ C. $P(A) > 0$ D. None
12	The positive real number which is the measure of the length of a vector is called the	A. Unit vector B. Modulus C. Inverse D. None of these
13	Two cards are drawn at random from a well shuffled pack of cards. The probability that at least one of them is a face card is	A. $3/17$ B. $5/17$ C. $7/17$ D. $9/17$
14	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $(x^3 - 3x^2 + 8x + c)^2$ B. $3x^2 - 6x + c$
15	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Diagonal matrix B. Scalar matrix C. Triangular matrix D. Identity matrix
16	A conjunction is considered to be true only if both its components are	A. False B. Equivalent C. Equal D. True
17	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Rational B. Irrational C. Non-real

D. Zero

18

Question Image

A.  $\frac{1}{3}$

B. 1

C. 3

D. None of these

19

If the sum of two unit vectors is a unit vector the the magnitude of their difference is

A.  $\sqrt{2}$

B.  $\sqrt{3}$

C. 1

D. None of these

20

Every prime number is also

A. Rational number

B. Even number

C. Irrational number

D. Multiple of two numbers