

## ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	Any conditional and its contrapositive are	A. Equilavant B. Opposite C. Equal D. Not Equal
2	Which of the following is a vector	A. length B. momentum C. volume D. speed
3	$f(x) = 2^x + 3 \cdot 2^{2x} + 5$ is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
4	If $0 \in \mathbb{R}$ , then the additive inverse of $a$ is	A. $1/9$ B. $\frac{1}{-9}$ C. $a$ D. $-a$
5	Question Image	A. A prime number B. An integer C. A whole number D. An irrational number
6	Question Image	A. hypothesis B. implication C. consequent D. antecedent
7	AB is a vertical pole and C is its middle point. The end A is on the level ground and P is any point on the level ground other than A. the portion CB subtends an angle $\beta$ at P. If $AP : AB = 2 : 1$ then $\beta =$	
8	When rational fraction is separated into partial fractions, the result is	A. an identity B. A fraction C. A partial sum D. Improper fraction
9	Question Image	
10	If the angle between two vectors with magnitude 6 and 2 is $60^\circ$ when their scalar product is	A. 12 B. 6 C. 3 D. 0
11	If $f(x) = x^{-100}$ the value of $f^{-1}(1)$ is:	A. 100 B. -100 C. 0 D. -101
12	A circle which touches one side of a triangle externally and the other two sides produced is called	A. In-circle B. Circumcircle C. e-circle D. Point circle
13	Tangent is .....function	A. Inverse B. one-one C. in-to D. Periodic
14	If $n$ is any positive integer then $4^n > 3^n + 4$ is true for all	
15	Question Image	
16	$n$ different objects can be arranged taken all at a time in _____	A. $(n + 1)!$ ways B. $(n - 1)!$ ways C. $n!$ ways D. $n$ ways
17	What is the conjugate of $-6 - i$	A. $-6 + i$ B. $6 + i$ C. $-6 - i$

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| 18 | 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<br>B. Bijective<br>C. 1-1 and into<br>D. None of these |
| 19 | Which one the valid root of $3x^3 - 8x^2 - 5x + 8 = 0$ ?   | A. 4<br>B. 3<br>C. 8<br>D. A and B both                                |
| 20 | If $\sin A = \sin B$ , $\cos A = \cos B$ , then the value of $A$ in terms of $B$ is  |  |