

## ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	The 10th common term between the series $3+7+11+\dots$ and $1+6+11+\dots$ is	A. 191 B. 193 C. 211 D. None of these
2	If $f(x) = x^5 + x^3 + x$ the value of $f^{-1}(1)$ is:	A. 0 B. 8 C. 5 D. 9
3	$\tan^{-1}x = \dots$	A. $\sin x$ B. $\sec^{-1}x$ C. $\cot^{-1}x$ D. None of these
4	For any two sets A and, $A \subseteq B$ if	A. $x \in A \Rightarrow x \in B$ B. $x \notin A \Rightarrow x \notin B$ C. $x \in A \Rightarrow x \notin B$ D. None of these
5	If $4 \sin^2 \theta = 1$ , then values of $\theta$ are	
6	Question Image	A. $\pi$ B. $\pi/2$ C. $\pi/3$ D. $\pi/4$
7	The quadratic equation $8 \sec^2 \theta - 6 \sec \theta + 1 = 0$ has	A. Infinitely many roots B. Exactly two roots C. Exactly four roots D. No roots
8	If $f(x) = x + 1$ then $f(z^2 - 1)$ is	A. $z^2$ B. $z^2 + 2$ C. $z^2 - 2$ D. none of these
9	Question Image	D. None of these
10	Question Image	
11	Question Image	A. bijective function B. into function C. onto function D. surjective
12	The polynomial $x - a$ is a factor of the polynomial $f(x)$ if and only if	A. $f(a)$ is positive B. $f(a)$ is negative C. $f(a) = 0$ D. None of these
13	x-axis divides the line segment joining points (2,-3) and (5,6) in the ratio:	A. 2 : 1 B. -2 : 1 C. 1 : 2 D. -1 : 2
14	The set of all antiderivatives of $f(x) = \int f(x) dx$ is the	A. Definite integral B. Indefinite integral C. Integral D. Area
15	The first three terms in the expansion of $(1 - x)^{-1}$ are	A. $1 + x + x^2$ B. $1 - x - x^2$ C. $-1 - x - x^2$ D. $1 - x + x^2$
16	if $y = x^2$ then $dy/dx$ equals:	A. $2x$ B. $x/2$ C. $2x^3$ D. $x^3/2$

17	A bag contains 7 whit, 5 black and 4 rd balls. If two balls are drawn at random from the bag, the probability that they are not of the same color is	A. 73 / 120 B. 83 / 120 C. 67 / 120 D. 43 / 120
18	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
19	Question Image	A. additive property B. multiplicative property C. additive identity D. multiplicative identity
20	Question Image	A. 1760 B. -193 C. 223 D. none of these