

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	In a quadratic equation with leading co-efficient 1, a student reads the co-obtain the roots as - 15 and -4. The correct roots are	A. 6, 10 B. -6, -10 C. 8, 8 D. -8, -8
2	The cube roots of 8 are	
3	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 1760 B. -193 C. 223 D. none of these
4	$\cos^{-1}(\cos x) =$	A. x B. $\cos x$ C. $x = 1/x$ D. $\cos^2 x$
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. I B. A C. A I D. None of these
6	The range of $y = x^2 + 1$ is the set of non-negative real numbers except	A. $0 \leq y < 1$ B. $0 < y < 1$ C. $0 \leq y \leq 1$ D. $0 < y \leq 1$
7	If a,b,c are three non-coplanar vector then $[a + b, b + c, c + a] =$ _____	A. [a.b.c] B. $2[a,b,c]$ C. $[abc]-2$ D. $2[abc]^2$
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
9	Number of permutations of n distinct objects taken $r (r < n)$ at a time which exclude 3($<n$) particular objects is	A. $3! P(n, r - 3)$ B. $P(n, 3) P(n, r - 3)$ C. $P(r, r) P(n, r - 3)$ D. $P(n - 3, r)$
10	For the equation $ x^2 + x - 6 = 0$, the roots are	A. One and only one real number B. Real with sum one C. Real with sum zero D. Real with product zero
11	If $f(\alpha) = b^2$ and $g(c) = d$ where $c = b^2$ then $(g \circ f)(\alpha)$ is	A. α B. c C. b D. d
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
13	Two matrices A and B are conformable for the product AB if	A. Both A and B are square B. Both A and B are symmetric C. Number of rows of A = number of columns of B D. Number of columns of A = number of rows of B
14	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
15	The period of $\tan [x/3]$ is _____	A. 2π B. π C. $\pi/3$ D. 3π

2023; >3<i style= text-align: center;">π</i></div>
D. 5<i>π</i>

16

Question Image

- A. quadratic function
- B. constant function
- C. trigonometric function
- D. linear function

17

A key ring is an example of

- A. Permutation
- B. Circular permutation
- C. Combination
- D. None

18

$x = \underline{\hspace{2cm}}$ is in the solution of $2x - 3 < 0$

- A. 2
- B. -2
- C. 3
- D. 4

19

π is the period of the function

- A. $|\sin x| + |\sin x|$
- B. $\sin^4 x + \cos x$
- C. $\sin(\sin x) + \sin(\cos x)$
- D. None of these

20

Question Image

- A. A
- B. A'
- C. U
- D. None of these