

## ECAT Mathematics MCQ's Test For Full Book

| Sr | Questions   | Answers Choice   |
|----|---|--|
| 1  | $d/dx (\cos x \sin x) =$  | A. $\cos^2 x - \sin^2 x$<br>B. $2\cos^2 x + \sin^2 x$<br>C. $2\cos^2 x - \sin^2 x$<br>D. $1 - \sin^2 x$                    |
| 2  | $\ln(x + iy)$ is known as   | A. Imaginary part of complex number<br>B. Real part of complex number<br>C. Complex number<br>D. None of above             |
| 3  | A and B be two square matrices and if their inverse exist, the $(AB)^{-1} =$  | A. $A^{-1}B^{-1}$<br>B. $AB^{-1}$<br>C. $A^{-1}B$<br>D. $B^{-1}A^{-1}$   |
| 4  | The first three terms in the expansion of $(1 - x)^{-2}$ are  | A. $1 - 2x + 3x^2$<br>B. $1 - 2x - 3x^2$<br>C. $1 + 2x + 3x^2$<br>D. $-2 - 2x + 3x^2$                                      |
| 5  | If $\alpha, \beta$ are the roots of $ax^2 + bx + c = 0$ and $\alpha + h, \beta + h$ are the roots of $px^2 + qx + r = 0$ , then $h =$ |  |
| 6  | If $S_r$ denotes the sum of the first $r$ terms of a G.P., then $S_n, S_{2n} - S_n, S_{3n} - S_{2n}$ are in                           | A. A.P.<br>B. G.P.<br>C. H.P.<br>D. None of these  |
| 7  | Question Image  |  |
| 8  | If $y = f(x)$ is a function then $y$ is called  | A. dependent variable<br>B. independent variable<br>C. constant<br>D. none of these  |
| 9  | The set of real numbers is a subset of  | A. The set of natural numbers<br>B. The set of rational numbers<br>C. The set of integers<br>D. The set of complex numbers |
| 10 | The 7th term of the A.P 7, 11, 15, is   | A. 24<br>B. 31<br>C. 26<br>D. 23   |
| 11 | The domain and range of a trigonometric function can be allocated by their  | A. graph<br>B. Continuity<br>C. Discontinuity<br>D. Periods  |
| 12 | The function $\{f(x, y)   y = ax^2 + bx + c\}$ is   | A. One-one function<br>B. Constant function<br>C. Onto function<br>D. Quadratic function                                   |
| 13 | Question Image  |  |
| 14 | Question Image  |  |
| 15 | The circular measure of the angle between the hands of a watch of 4 o'clock is  | A. $\pi/2$<br>B. $\pi/4$<br>C. $2\pi/3$<br>D. $\pi/6$  |
| 16 | A polynomial $P(x)$ has a factor $(x - a)$ if $P(a) =$  | A. $a$<br>B. $x$<br>C. 1<br>D. 0   |
| 17 | The set of ordered pairs $(x, y)$ such that $ax + by < c$ , and $(x, y)$ such that $ax + by > 0$ , are called                         | A. Half planes<br>B. Boundary<br>C. Linear Inequalities  |

D. Feasible regions

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Question Image

- A. Closure law of addition
- B. Associative law of addition
- C. Additive inverse
- D. Additive identity

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A point where two of its boundary lines intersect is called

- A. Corner point
- B. Feasible point
- C. Vertex
- D. Feasible solution

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$(a^{-1})^{-1} =$

- A.  $a^{-1}$
- B.  $a$
- C.  $-a$
- D. None of above