

ECAT Mathematics MCQ's Test For Full Book

| Sr | Questions | Answers Choice |
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| 1 | The position vector of any point in space is | |
| 2 | 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 B. Boundary C. Linear Inequalities D. Feasible regions |
| 3 | Roots of the equation $x^2 + 7x + 12 = 0$ are | A. {3, -4} B. {-3, 4} C. {3, 4} D. {-3, -4} |
| 4 | The number of different ways of describing a set is | A. One B. Two C. Three D. Four |
| 5 | If in a set of real no a is multiplicative identity then | A. $a, a = a^{2/2}$ B. $a, a = 1$ C. $a, a = 0$ D. None of these |
| 6 | $(1 + 2x)^4 = \underline{\hspace{2cm}}$ | A. $1 + 4x + 6x^2 + 4x^3 + x^4$ B. $1 - 4x + 6x^2 - 4x^3 + x^4$ C. $1 - 8x + 24x^2 - 32x^3 + 16x^4$ D. $1 + 8x + 24x^2 + 32x^3 + 16x^4$ |
| 7 | The sample space for tossing a coin twice is | A. {H, T} B. {HH, HT, TH, TT} C. {H, T, HH} D. {HH, HT, TT} |
| 8 | <u>Question Image</u> <input style="width: 100%; height: 15px;" type="text"/> | A. 0 B. 1 C. 2 |
| 9 | If the roots of $ax^2 + b = 0$ are real and distinct then | A. $ab > 0$ B. $a = 0$ C. $ab < 0$ D. $a > 0, b > 0$ |
| 10 | The period of $\cot 8x$ is | A. $\pi/10$ B. $9\pi/7$ C. $\pi/9$ D. $\pi/8$ |
| 11 | If the cutting plane is parallel to the axis of the cone and intersects both of its nappes, then the curve of intersection is | A. an ellipse B. a circle C. a parabola D. a hyperbola |
| 12 | <u>Question Image</u> <input style="width: 100%; height: 15px;" type="text"/> | B. $\ln(x^2 - x + 1) ⁴ + c$ |
| 13 | If two balls are drawn from a bag containing 3 white, 4 black and 5 red balls. Then the probability that the drawn balls are of different colours is | A. $1 / 66$ B. $3 / 66$ C. $19 / 66$ D. $47 / 66$ |
| 14 | <u>Question Image</u> <input style="width: 100%; height: 15px;" type="text"/> | |
| 15 | I is not | A. Real number B. Natural number C. Prime Number D. Whole Number |
| 16 | Every natural number is | A. A prime number B. An irrational number C. An integer D. An even number |

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| 17 | Any whole number can be written as a product of factors which are | A. Odd numbers B. Prime number C. Rational number D. Even number |
| 18 | The set of natural no. is closed under | A. multiplication B. subtraction C. difference D. division |
| 19 | The horizontal distance between the two towers is 60 m. the angular elevation of the top of the taller tower as seen from the top of the shorter one is 30° . If the height of the taller tower is 150 m, the height of the shorter one is | A. 116 m B. 200 m C. 216 m D. None of these |
| 20 | All men are mortal. We are men, therefore, we are also mortal. This is a useful example of | A. deduction B. induction C. conjunction D. disjunction |
