

ECAT Mathematics MCQ's Test For Full Book

| Sr | Questions | Answers Choice |
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| 1 | Question Image | |
| 2 | Multiplicative inverse of "1" is | A. 0 B. ± 1 C. 1 D. $\{0,1\}$ |
| 3 | The angle of elevation of a tower from a point A due south of it is x and from a point B due east of A is y . If $AB = 1$, then the height h of the tower is given by | |
| 4 | When rational fraction is separated into partial fractions, the result is | A. an identity B. A fraction C. A partial sum D. Improper fraction |
| 5 | Question Image | |
| 6 | Domain of $\cos x$ is _____ | |
| 7 | If $\sin(\pi \cos \theta) = \cos(\pi \sin \theta)$, then which of the following is correct? | |
| 8 | $3/2$ is | A. An irrational number B. Whole number C. A positive integer D. A rational number |
| 9 | Matrices $A = [a_{ij}] 2 \times 3$ and $B = [b_{ij}] 3 \times 2$ are suitable for | A. BA B. $A^{>2}</sup>$ C. AB D. $B^{>2}</sup>$ |
| 10 | Consider the equation $px^2 + qx + r = 0$ where p, q, r are real The roots are equal in magnitude but opposite in sign when | A. $q = 0, r = 0, p \neq 0$ B. $p = 0, qr \neq 0$ C. $r = 0, pq \neq 0$ D. $q = 0, pq \neq 0$ |
| 11 | Question Image | A. Associate law of addition B. Commutative law of addition C. Additive identity D. Closure law of addition |
| 12 | What is the number of elements of the power set of $\{ \}$ | A. 0 B. 1 C. 2 D. 3 |
| 13 | Question Image | |
| 14 | Two quadratic equation in which xy term is missing and the coefficients of x^2 and y^2 are equal, give a linear equation by _____ | A. Addition B. Subtraction C. Multiplication D. Division |
| 15 | If a polynomial $P(x)$ is divided by $x + a$, then the remainder is | A. $P(a)$ B. $P(-a)$ C. $P(0)$ D. None of these |
| 16 | The transport of a rectangular matrix is a | A. Square matrix B. Rectangular matrix C. Row matrix D. Column matrix |
| 17 | The set of the first elements of the ordered pairs forming a relation is called its | A. Function on B B. Range C. Domain D. A into B |
| 18 | The approximate increase in the area of a circular disc if its diameter increased from 44cm to 44.4cm is | A. 0.4cm B. 8.8π cm C. 17.6π cm D. 35.2π cm |

19 If the cutting plane is slightly tilted and cuts only one nappe of the cone, the resulting section is

- A. an ellipse
- B. a circle
- C. a hyperbola
- D. a parabola

20 If S_n is a definite number as $n \rightarrow \infty$, then the geometric series is

- A. Convergent
- B. Divergent
- C. Oscillatory
- D. None of these