

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	Identity w.r.t intersection in a power set of any set is	A. \emptyset B. Set itself C. Singleton set D. $\{0\}$
2	The distance of a point $(x \cos\theta, x \sin\theta)$ from origin is:	A. x B. $x \tan\theta$ C. $-\tan\theta$ D. $-\cot\theta$
3	A Series which does not coverage to a Unique sum is called	A. Harmonic Series B. Oscillatroy Series C. Arithmetic Series D. None of these
4	$a + x$ is _____	A. A trinomial B. A binomial C. A monomial D. None of these
5	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. $47 / 66$
6	Domain of $\tan x$ is _____	
7	Question Image <input style="width: 400px; height: 20px;" type="text"/>	A. 1 B. -1 C. 0 D. None of these
8	Which of the following has the same value as i^{113}	A. i B. -1 C. $-i$ D. 1
9	Question Image <input style="width: 400px; height: 20px;" type="text"/>	
10	The roots of $ax^2+bx+c=0$ are	A. Rational $\Leftrightarrow b^2 - 4ac \geq 0$ B. Irrational $\Leftrightarrow b^2 - 4ac > 0$ C. Real $\Leftrightarrow b^2 - 4ac \neq 0$ D. Rational $\Leftrightarrow b^2 - 4ac = 0$
11	Question Image <input style="width: 400px; height: 20px;" type="text"/>	A. A prime number B. An integer C. A whole number D. An irrational number
12	The set of cartesian product $A \times B$ consists of	A. Domain B. Range C. Binary relation D. Ordered pair
13	A particle moving in a straight line with velocity $V = (4-t^2)$ where t is the line from a fixed point. The acceleration of the particle after 4 sec is.	A. -8 m/sec^2 B. -4 m/sec C. -8 m/sec D. -4 m/sec^2
14	Question Image <input style="width: 400px; height: 20px;" type="text"/>	
15	If $\text{Proj}_v u = \text{Proj}_u v$, then	A. u and v are parallel B. $ u = v $ C. u and v are perpendicular D. One of u or v
16	Fifteen girls compete in a race. The first three places can be taken by them in	A. $3!$ ways B. $15!$ ways C. $15 \times 14 \times 13$ ways D. 42 ways
17	Which of the following is a scalar	A. displacement B. velocity C. acceleration D. $\vec{u} \cdot \vec{v}$

18 Question Image

19 Graph of the question $x^2 + y^2 = 4$ is

- A. A circle
- B. An ellipse
- C. A parabola
- D. A square

20 Question Image

- A. $a^2b^2c^2$
- B. $4a^2b^2c^2$
- C. $4abc$
- D. None