

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	The distance of a point $(x \cos\theta, x \sin\theta)$ from origin is:	A. x B. $x \tan\theta$ C. $-\tan\theta$ D. $-\cot\theta$
2	If $f(x) = x^2$ then $f(0)$ is	A. 0 B. 1 C. 2 D. none of these
3	Question Image	A. -228 B. -1/288 C. -1/220 D. -1/177
4	Which of the following has the same value as i^{13}	A. i B. -1 C. $-i$ D. 1
5	Apollonius was a	A. rocket B. Muslim scientist C. Greek mathematicians D. method of finding conics
6	Riaz, Saba, Maria, Shehzad are to give speeches in a class. The teacher can arrange the order of their presentation in	A. 4 ways B. 12 ways C. 256 ways D. 24 ways
7	Question Image	
8	The modulus of $12-5i$ is:	A. 7 B. 13 C. $\sqrt{7}$ D. 119
9	How many terms of the A.P 3,6,9,12,15.....must be taken to make the sum 108	A. 8 B. 6 C. 7 D. 36
10	Question Image	A. Lies between 4 and 7 B. Lies between 5 and 9 C. Has no value between 4 and 7 D. Has no value between 5 and 9
11	A square matrix $A = [a_{ij}]$ is upper triangular when	A. $c_{ij} = 0$ B. $b_{ij} = 0$ C. $a_{ij} = 0$ for all $i > j$ D. $d_{ij} = 0$
12	Question Image	A. $[0, 1[$ B. $[0, 1]$ C. $]0, 1[$ D. None of these
13	$A = B$ if	D. A is equivalent to B
14	Question Image	A. The law of cosines B. The law of sines C. The law of tangents D. None of these
15	If $uv = \text{Proj}_v u$ then	A. u and v are parallel B. v is a unit vector C. u is a unit vector D. Both b and c
16	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

17 Question Image

18 If $(1+x)^n = C_0 + C_1x + C_2x^2 + \dots + C_nx^n$ then $C_0C_2 + C_1C_3 + C_2C_4 + \dots + C_{n-2}C_n =$

19 If $x^2 + y^2 = 1$, then dy/dx

- A. y/x
- B. $-x/y$
- C. $1/x$
- D. None of these

20 Question Image

- B. $a f(x) + c$
- C. $f(x) + a$