

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	$\cos^{-1}(x)=$	A. $\cos x$ B. x C. $\tan^{-1}(-x)$ D. $\sec^{-1}(1/x)$
2	Question Image	
3	The last term of $(1+2x)^{-2}$	A. $(-1)^{-2}(2x)^{-2}$ B. $(-1)^{-4}(-2x)^{-2}$ C. $(-1)^{-3}(2x)^{-3}$ D. Does not exist
4	A circle passing through the vertices of any triangle is called _____	A. In circle B. Circum circle C. Escribed circle D. None of these
5	To each element of a group there corresponds _____ inverse element	A. Two B. One C. No D. Three
6	The length of perpendicular from $(3,1)$ to the line $4x + 3y + 20 = 0$ is:	A. 7 B. 5 C. 11 D. 12
7	If $\cos(2 \sin^{-1} x) = 1/9$, then what is the value of x ?	A. $1/3$ B. $-2/3$ C. $2/3$ D. $2/3, -2/3$
8	The distance between two parallel lines $2x - 5y + 13 = 0$ and $-2x + 5y - 6 = 0$ is:	A. $\sqrt{29}$ B. $8/\sqrt{29}$ C. $7/\sqrt{29}$ D. $29\sqrt{7}$
9	The angle between the vectors $\underline{u} = [-3, 5]$ and $\underline{v} = [6, -2]$ is:	A. $\pi/2$ B. $-3\pi/2$ C. π D. None of these
10	Cycle tyres are supplied in lots of 10 and there is a chance if 1 in 500 tyres to be defective. Using Poisson distribution, the approximate number of lots containing no defective tyre in a consignment of 10,000 lots is	A. 9028 B. 9208 C. 9802 D. 9820
11	For which of the following ordered pairs (s, t) is $s + t > 2$ and $s - t < -3$?	A. $(3, 2)$ B. $(2, 3)$ C. $(1, 8)$ D. $(0, 3)$
12	Period of $\operatorname{cosec} x$ is _____	
13	If $ab > 0$ and $a < 0$, which of the following is negative?	A. b B. $-b$ C. $-a$ D. $(a - b)^{2/3}$
14	If w is a cube root of unity then $1 + w + w^2 =$ _____	A. 1 B. 2 C. 0 D. -1
15	$\sin(\sin^{-1}(1/2)) =$	A. 0 B. 2 C. ∞ D. $1/2$
16	If $4 > b$ or $a < b$ then $a = b$ is a	A. Additive property B. Transitive property C. Trichotomy property of inequality D. None of above

17	It is not possible to find the exact value of	A. π B. $\sqrt{9}$ C. $\sqrt[3]{27}$ D. $\sqrt{1}$
18	In a country, 55% of the male population has houses in cities while 30% have houses both in cities and in village. Find the percentage of the population that has house only in villages.	A. 45 B. 30 C. 25 D. 50
19	There are 50 students in a class out of these 38 used desktop computers, 16 out of these used laptop. It is noted that five student neither use laptop or computer. The students having both laptop and computer are A. Based on the information find out the greatest value of A	A. 36 B. 4 C. 16 D. 30
20	In school there are 150 students Out of these 80 students enrolled for mathematics class 50 enrolled for English class and 60 enrolled for Physics class The student enrolled for English cannot attend any other class but the students of mathematics and Physics can take two courses at a time Find the number of students who have taken both physics and mathematics.	A. 40 B. 30 C. 50 D. 20