ECAT Pre Engineering MCQ's Test For Mathematics Full Book

Sr	Questions	Answers Choice
1	The coefficient of xn in the expansion of (1-2x)-1 is	A. (-1)n2n B. 2n C. (-1)(n+1)xr D. (n+1)2n
2	A matrix with a single row is called a	A. Column matrix B. Row matrix C. Null matrix D. Identity matrix
3	The root of the quadratic equation are	A. 3 B. 2 C. 1 D. 4
4	If the expansion of $(1 + x)^{20}$, then co-efficient of rth ad (r + 4)th term are equal, then r is	A. 7 B. 8 C. 9 D. 10
5	If $f(x) = x^2 - x$ then f(2) is	A. 4 B. 6 C. 2 D. 0
6	The set (Q, .)	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
7	Question Image	A. A B. 0 C. Unit vector D. None
8	$d/dx [\tan^2 x]$	A. 2tan x sec² x B. 2tan x sec x C. 2 cot x tan x D. 2sec² x cos² x
9	Which is not included in the domain of $\cos^{-1}x$	A. 0 B. 1 C. -1 D. 2
10	If z = (x,y) , then $\bar{z}$ =	A. (-x,y) B. (x,-y) C. (-x, -y) D. None of these
11	radian is the measure of the angle subtended oat the centre of the circle by an are, whose length is equal to the	A. radius of the circle B. circumference C. are length D. tangent of the circle E. none of these
12	The multiplicative inverse of x such that x = 0 is	A. -x B. Does not exist C. 1/x D. ±1
13	Question Image	A. -35 B. -28 C. 41 D. 72
14	Question Image	A. R/[0,4] B. R/(0,4) C. (0,4) D. [0,4]
15	$p(x) = 2x^4 - 3x^3 + 2x - 1$ is polynomial of degree	A. 1 B. 2 C. 3

		D. 4
16	The probability that a person A will be alive 15 years hence is 5/7 and the probability that another person B will be alive 15 years hence is 7/9. Find the probability that both will be alive 15 years hence	A. 4/63 B. 5/9 C. 45/49 D. None of these
17	The set {-1,1} is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
18	The set of complex numbers forms	A. Commutative group w.r.t addition B. Commutative group w.r.t multiplication C. Commutative group w.r.t division D. Non commutative group w.r.t addition
19	Question Image	
20	For a set A, A∪Ac= ----------	A. A B. ∅ C. Ac D. U