Mathematics ECAT Pre Engineering Online Test

Sr	Questions	Answers Choice
1	A function whose range is just one elements is called	A. One-one function B. Constant function C. Onto function D. Identity function
2	The set of the first elements of the orders pairs forming a relations is called its	A. Relation in B B. Range C. Domain D. Relation in A
3	If #n = $(n-5)^2$+ 5, then find #3 x #4.	A. 54 B. 12 C. 4 D. 9
4	Question Image	
5	The set { {a, b} } is	A. Infinite set B. Singleton set C. Two points set D. Empty set
6	Question Image	A. Singleton set B. A set with two points C. Empty set D. None of these
7	Φset is the _____ of all sets?	A. Subset B. Union C. Universal D. Intersection
8	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
9	Decimal part of irrational number is	A. Terminating B. Repeating only C. Neither repeating nor terminating D. Repeating and terminating
10	Multiplicative inverse of 0 is	A. 0 B. 1 C. +-1 D. Does not exist
11	The identity elements with respect to subtraction is	A. 0 B. 1 C. -1 D. Does not exist
12	Question Image	A. -x B. Infinite set C. {-4, 4} D. None of these
13	Question Image	A. 1/x B. -x C. 2x D. 0.5 x
14	Additive inverse of -a -b is	A. a B. -a + b C. a - b D. a + b
15	If a set S contains "n" elements then P (S) has ..... number of elements	A. 2ⁿ B. 2²ⁿ C. 2 . n D. n²
16	Multiplicative inverse of "1" is	A. +- 1 B. 0 C. 1

		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	Question Image	
19	The total number of subsets that can be formed out of the set {a, b, c} is	A. 1 B. 4 C. 8 D. 12
20	Question Image	A. A = B B. B = C C. A = C D. None of these
21	Question Image	A. 1 B. 12 C. 5 D. 29
22	Question Image	A. 3 B. 1 C. 2 D. 4
23	In set builder notation the set {0, 1, 2, ..., 100} can be written as	
24	Question Image	A. A B. B C. A' D. None of these
25	For any set B, BUB' is	A. Is set B B. Set B' C. Universal set D. None of these
26	The set (Z, +) forms a group	A. Forms a group w.r.t. addition B. Non commutative group w.r.t. multiplication C. Forms a group w.r.t multiplication D. Doesn't form a group
27	The set (Q, .)	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
28	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
29	The set of all positive even integers is	A. Not a group B. A group w.r.t. subtraction C. A group w.r.t. division D. A group w.r.t. multiplication
30	The set {1, -1, 1, -1}, form a group under	A. Addition B. Multiplication C. Subtraction D. None