ECAT Computer Science Entry Test

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	A. 3, -3, 11 B. 3, 3, 11 C. -3, 3, -11 D. -3, -3, 11
3	Question Image	
4	Question Image	A. a²b²c² B. 4a²b²c² C. 4abc D. None
5	Question Image	
6	Question Image	A. 1 B. -1 C. 0 D. I
7	Let A be a square matrix. Then, 1/2 (A-A') is	A. Skew-symmetric B. Symmetric C. Null D. None of the above
8	If A is a skew-symmetric matrix of order n and P, any square matrix of order n, prove that P' AP is	A. Skew-symmetric B. Symmetric C. Null D. Diagonal
9	(ABC)' =	A. CBA' B. CBA C. C' B' A' D. None of these
10	Question Image	A. 1 B. 0 C. -1 D. 2
11	Question Image	A. 1 B. 0 C. 3 D. -1
12	Question Image	A. -3 B. -7 C. 1 D. 0
13	Question Image	A. A²- 5A + 7I = 1 B. 2A²- 3A + 7I = 0 C. A²- 5A + I = 0 D. A²- 5A + 7I = 0
14	Question Image	
15	Question Image	
16	Question Image	A. a = 2, b = 3 B. a = 3, b = 2 C. a = 2, b = 1, 2 D. a = 3, b = 3
17	Power set of X i.e P(X) _____ under the binary operation of union U	A. Forms a group B. Does not form a group C. Has no identity element D. Infinite set although X is infinite
		A. True

18	The statement that a group can have more than one identity elements is	B. False C. Ambiguous D. Some times true
19	The set {Z\{0}} is group w.r.t	A. Addition B. Multiplication C. Division D. Subtraction
20	The set R is _____ w.r.t subtraction	A. Not a group B. A group C. No conclusion drawn D. Non commutative group
21	The set {1, -1, i, -i}	A. Form a group w.r.t addition B. Form a group w.r.t multiplication C. Does not form a group w.r.t multiplication D. Not closed under multiplication
22	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
23	The multiplicative inverse of -1 in the set {1-, 1} is	A. 1 B. -1 C. +-1 D. 0
24	The set {-1, 1} is	A. Group under the multiplication B. Group under addition C. Does not form a group D. Contains no identity element
25	Question Image	A. Addition B. Multiplication C. Division D. Both addition and multiplication
26	The set of integer is	A. Finite group B. A group w.r.t addition C. A group w.r.t multiplication D. Not a group
27	To each element of a group there corresponds _____ inverse element	A. Two B. One C. No D. Three
28	The function f{(x, y) | $y = ax^2 + bx + c$} is	A. One-one function B. Constant function C. Onto function D. Quadratic function
29	The graph of a quadratic function is	A. Circle B. Straight line C. Parabola D. Triangle
30	A function whose range is just one elements is called	A. One-one function B. Constant function C. Onto function D. Identity function