

Mathematics ECAT Pre Engineering Online Test

Sr	Questions	Answers Choice
1	The extraction of cube root of a given number is a	A. Unary Operation B. Binary Operation C. Relation D. None of these
2	The negation of given number is a	A. Binary operation B. Unary operation C. Relation D. None of these
3	A conditional is regarded as false only when the antecedent is true and consequent is	A. True B. False C. Known D. Unknown
4	A disjunction of two statement p and q is true	A. p is false B. q is false C. Both p and q are false D. One of p and q is true
5	A conjunction of two statement p and q is true only if	A. p is true B. q is true C. Both p and q are true D. both p and q are false
6	$(A \cap B)^c =$ -----	A. $A^c \cup B^c$ B. $A^c \cup B$ C. $A^c \cap B$ D. None of these
7	For a set A, $A \cup A^c =$ -----	A. A B. $\emptyset$ C. A^c D. U
8	$A \cup (A \cap B) =$ -----	A. B B. A C. $A \cup B$ D. None of these
9	$(A \cup B) \cap C =$ -----	A. $A \cap B \cap C$ B. $A \cup (B \cap C)$ C. $A \cap (B \cap C)$ D. None of these
10	If $B \subseteq A$, then complement of B in A is = -----	A. $A - B$ B. $A \cap B$ C. $B - A$ D. $A \cup B$
11	If $A = B$, then	A. $A \subseteq B$ and $B \subseteq A$ B. $A \subseteq B$ and $B \not\subseteq A$ C. $A \subseteq B$ and $B \subseteq A$ D. None of these
12	The set X is	A. Proper Subset of X B. Not A subset of X C. Improper Subset of X D. None of these
13	The function whose range consists of just one element is called	A. One-One Function B. Identity Function C. Onto Function D. Constant Function
14	Question Image	D. None of these
15	The set of natural is a semi group w.r.t	A. Addition B. Division C. Subtraction D. None of these
16	A monoid $(G, *)$ is said to be group if	A. have identity element B. is commutative C. have inverse of each element

		D. None of these
17	The geometrical representation of a linear function is	A. Circle B. Parabola C. Straight line D. None of these
18	Question Image	A. Addition B. Subtraction C. Multiplication D. None of these
19	Question Image	D. None of these
20	If $f:A \rightarrow B$ is an injective function and second elements of no two of its ordered pairs are equal, then f is called	A. 1-1 and onto B. Bijective C. 1-1 and into D. None of these
21	Onto function is also called	A. Bijective function B. Injective function C. Surjective function D. None of these
22	The contra positive of $p \rightarrow q$ is	A. $q \rightarrow p$ B. $\sim q \rightarrow \sim p$ C. $\sim p \rightarrow \sim q$ D. None of these
23	The logic in which every statement is regarded as true or false and no other possibility is called	A. Aristotelian logic B. Inductive logic C. Non-Aristotelian logic D. None of these
24	If $B-A \neq \emptyset$, then $n(B-A)$ is equal to	A. $n(a)+n(c)$ B. $n(c)-n(a)$ C. $n(a)-n(c)$ D. None of these
25	If $A \cap B = B$, then $n(A \cap B)$ is equal to	A. $n(a)$ B. $n(a)+n(c)$ C. $n(c)$ D. None of these
26	If the intersection of two sets is non-empty, but neither is a subset of other are called	A. Disjoint sets B. Overlapping C. Equal sets D. None of these
27	The set which has no proper subset is	A. $\{0\}$ B. $\{\}$ C. $\{\emptyset\}$ D. None of these
28	The set $\{x x \in \mathbb{N} \wedge x-4=0\}$ in tabular form is	A. $\{-4\}$ B. $\{0\}$ C. $\{\}$ D. None of these
29	$\{x x \in \mathbb{R} \wedge x \neq x\}$ is a	A. Infinite set B. Null set C. Finite set D. None of these
30	The set of rational numbers between 0 and 1 is	A. Finite B. Null set C. Infinite D. None of these