

## ECAT Pre General Science Mathematics Chapter 2 Set, Functions and Groups Online Test

Sr	Questions	Answers Choice
1	If a 1-1 correspondence can be established b/w two sets A and B, then they are called	A. Equal sets B. Equivalent sets C. Over lapping sets D. None of these
2	For any two sets A and, $A \subseteq B$ if	A. $x \in A \Rightarrow x \in B$ B. $x \notin A \Rightarrow x \notin B$ C. $x \in A \Rightarrow x \notin B$ D. None of these
3	If A is a subset of B and B contains at least one element which is not an element of A, then A is said to be	A. Improper subset of B B. Super set of B C. Proper subset of B D. None of these
4	$\{x x \in R \wedge x \neq x\}$ is a	A. Infinite set B. Null set C. Finite set D. None of these
5	The set $\{x x \in N \wedge x-4=0\}$ in tabular form is	A. $\{-4\}$ B. $\{0\}$ C. $\{\}$ D. None of these
6	The set which has no proper subset is	A. $\{0\}$ B. $\{\}$ C. $\{\emptyset\}$ D. None of these
7	If the intersection of two sets is non-empty, but either is a subset of other are called	A. Disjoint sets B. Over lapping C. Equal sets D. None of these
8	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
9	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
10	The logic in which every statement is regarded as true or false and no other possibility is called	A. Aristotelian login B. Inductive logic C. Non-Aristotelian logic D. None of these
11	The contra positive of $p \rightarrow q$ is	A. $q \rightarrow p$ B. $\sim q \rightarrow \sim q$ C. $\sim p \rightarrow \sim q$ D. None of these
12	Onto function is also called	A. Binjective function B. Injective function C. Surjective function D. None of these
13	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
14	Question Image	D. None of these
15	Question Image	A. Addition B. Subtraction C. Multiplication D. None of these
16	The geometrical representation of a linear function is	A. Circle B. Parabola C. Straight lie D. None of these

		D. None of these
17	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
18	The set of natural is a semi group w.r.t	A. Addition B. Division C. Subtraction D. None of these
19	Question Image	D. None of these
20	The function whose range consists of just one element is called	A. One-One Function B. Identity Function C. Onto Function D. Constant Function
21	The set X is	A. Proper Subset of X B. Not A subset of X C. Improper Subset of X D. None of these
22	If $A=B$ , then	A. $A \subset B$ and $B \subset A$ B. $A \subseteq B$ and $B \not\subseteq A$ C. $A \subseteq B$ and $B \subseteq A$ D. None of these
23	If $B \subseteq A$ , then complement of B in A is = -----	A. A-B B. $A \cap B$ C. B-A D. $A \cup B$
24	$(A \cup B) \cup C =$ -----	A. $A \cap B(B \cup C)$ B. $A \cup (B \cup C)$ C. $A \cup (B \cap C)$ D. None of these
25	$A \cup (A \cap B) =$ -----	A. B B. A C. $A \cup B$ D. None of these
26	For a set A, $A \cup A^c =$ -----	A. A B. $\emptyset$ C. $A^c$ D. U
27	$(A \cap B)^c =$ -----	A. $A^c \cup B^c$ B. $A^c \cup B$ C. $A^c \cap B$ D. None of these
28	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
29	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
30	A conditional is regarded as false only when the antecedent is true and consequent is	A. True B. False C. Known D. Unknown
31	The negation of given number is a	A. Binary operation B. Unary operation C. Relation D. None of these
32	The extraction of cube root of a given number is a	A. Unary Operation B. Binary Operation C. Relation D. None of these
33	The identity element of a set X with respect to intersection in $P(X)$ is	A. X B. Does not exist C. $\emptyset$ D. None of these
34	Z is a group under	A. Subtraction B. Multiplication C. Addition D. None of these

35	Group of none-singular matrices under multiplication is	A. None-Abelian group B. Semi group C. Abelian group D. None of these
36	Question Image	A. $a-b=ab$ B. $ab=a$ C. $a+b=ab$
37	Question Image	A. A onto B B. both a & c C. A into B D. none of these
38	Power set of difference set N-W is	A. Empty set B. Infinite set C. Singleton set D. $\{0, \emptyset\}$
39	Which conjunction is not true ?	
40	Which symbolic notation represent unary operation ?	A. - B. $\vee$ C. $\wedge$ D. $\leftrightarrow$
41	Identity w.r.t intersection in a power set of any set is	A. $\emptyset$ B. Set itself C. Singleton set D. $\{0\}$
42	Under multiplication, solution set of is	A. Groupoid B. Abelian group C. Semi group D. All of these
43	If $z_1 = 2 + 6i$ and $z_2 = 3 + 7i$ then which expression defines the product of $z_1$ and $z_2$	A. $36 + (-32)i$ B. $-36 + 32i$ C. $6 + (-11)i$ D. $0, +(-12)i$
44	Which of the following has the same value as $i^{113}$	A. $i$ B. $-1$ C. $-i$ D. $1$
45	$Z$ is the set of integers ( $Z^*$ ) is a group with $a * b = a + b + 1$ , $a, b \in G$ . then inverse of $a$ is	A. $-a$ B. $a + 1$ C. $-1 - a$ D. None of these
46	$G = \{e, a, b, c\}$ is an Abelian group with $e$ as identity element The order of the other elements are	A. 2,2,2 B. 3,3,3 C. 2,2,4 D. 2,3,4
47	For any set $X$ , $X \cup X$ is	A. $X$ B. $X'$ C. $\Phi$ D. Universal Set
48	Given $X, Y$ are any two sets such that number of elements in set $X = 28$ , number of elements in set $Y = 28$ , and number of elements in set $X \cup Y = 54$ , then number of elements in set $X \cap Y =$	A. 4 B. 3 C. 2 D. 1
49	Let $A, B$ , and $C$ be any sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$ then	A. $A \neq C$ B. $B = C$ C. $A = B$ D. $A \neq B$
50	The complement of set $A$ relative to universal set $U$ is the set	A. $\{x / x \in A \wedge x \in U\}$ B. $\{x / x \notin A \wedge x \in U\}$ C. $\{x / x \in A \text{ and } x \notin U\}$ D. $A - U$
51	The multiplicative inverse of $x$ such that $x = 0$ is	A. $-x$ B. Does not exist C. $1/x$ D. $\pm 1$
52	Which of the following is the subset of all sets	A. $\Phi$ B. $\{1, 2, 3\}$ C. $\{\Phi\}$ D. $\{0\}$
		A. Infinite set B. Singleton set

53	The set $\{\{a,b\}\}$ is	B. Singleton set C. Two points set D. None
54	The set of the first elements of the ordered pairs forming a relation is called its	A. Function on B B. Range C. Domain D. A into B
55	The set of complex numbers forms a group under the binary operation of	A. Addition B. none of these C. Division D. Subtraction
56	The multiplicative inverse of -1 in the set $\{1,-1\}$ is	A. 1 B. -1 C. $\pm 1$ D. 0 E. Does not exist
57	The set $\{1,-1, i, -i\}$ form a group under	A. Addition B. Multiplication C. Subtraction D. None
58	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
59	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
60	The set Q	A. Forms a group under addition B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
61	The set $(\mathbb{Z}, +)$ 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
62	For any set B, $B \cup B'$ is	A. Is set B B. Set B' C. Universal set
63	If $A \subseteq B$ then $A \cup B$ is	A. A B. B C. $A'$ D. $A \cap B$
64	Given X,Y are any two sets such that number of elements in X = 18, number of elements in set Y = 24, and number of elements in set $X \cup Y$ = 40, then number of elements in set $X \cap Y$ =	A. 3 B. 1 C. 2 D. 4
65	If $n(X) = 18$ , $n(X \cap Y) = 7$ , $n(X \cup Y) = 40$ then $n(Y) =$	A. 1 B. 12 C. 5 D. 29
66	Let A,B and C be any sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$ then	A. $A = B$ B. $B = C$ C. $A \neq C$ D. $A \neq B$
67	If $x = 1/x$ for $x \in \mathbb{R}$ then the value of x is	A. $\pm 1$ B. 0 C. 2 D. 4
68	The set $\{-1,1\}$ is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
69	$\Phi$ set is the _____ of all sets	A. Subset B. Union C. Universal D. Intersection
70	$\{x : x \in \mathbb{Z} \text{ and } x < 1\}$ is	A. Singleton set B. A set with two points C. Empty set D. None of these

71	The set $\{ \{a,b\} \}$ is	A. Infinite set B. Singleton set C. Two points set D. Empty set
72	$(A \cap B)^c =$	A. $A \cap B$ B. $(A \cup B)^c$ C. $A^c \cup B^c$ D. $\Phi$
73	The set of the first elements of the orders pairs forming a relation is called its	A. Relation in B B. Range C. Domain D. Relation In A
74	A function in which the second elements of the order pairs are distinct is called	A. Onto function B. One-one function C. Identity function D. Inverse function
75	A function whose range is just one element is called	A. One-one function B. Constant function C. Onto function D. Identity function
76	The function $\{f(x,y)   y = ax^2 + bx + c\}$ is	A. One-one function B. Constant function C. Onto function D. Quadratic function
77	To each element of a group there corresponds ..... inverse element	A. Two B. One C. No D. Three
78	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
79	The set $\{x + iy / x, y \in \mathbb{Q}\}$ forms a group under the binary operation of	A. Addition B. Multiplication C. Division D. Both addition and multiplication
80	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
81	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
82	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
83	The set $\mathbb{R}$ is .....w.r.t subtraction	A. Not a group B. A group C. No conclusion drawn D. Non commutative group
84	The set $\{\mathbb{Z} \setminus \{0\}\}$ is group w.r.t	A. Addition B. Multiplication C. Division D. Subtraction
85	Power set of X i.e $P(X)$ .....under the binary operation of union $\cup$	A. Forms a group B. Does not form a group C. Has no identity element D. Infinite set although X is infinite
86	The set $(\mathbb{Z}, +)$ forms a group	A. Forms a group w.r.t addition B. Forms a group w.r.t multiplication C. Non commutative group w.r.t multiplication D. Doesn't form a group
87	The number of different ways of describing a set is	A. One B. Two C. Three D. Four
88	$\{1, 2, 3, 4, \dots\}$ is set of _____	A. Natural numbers B. Whole numbers C. Integers D. Rational numbers

89	Question Image	A. Natural numbers B. Whole numbers C. Integers D. Rational numbers
90	Question Image	A. Every element of A is in B B. Every element of B is in A C. Every element of A is in B' D. Every element of A is in A
91	Let A and B be two sets. If every element of A is also an element of B then	
92	The set of natural numbers is a subset of	A. {1, 2, 3, ..., 100} B. The set of whole numbers C. {2, 4, 6, 8, ...} D. None of these
93	The set of whole numbers is subset of	A. The set of integers B. The set of natural numbers C. {1, 3, 5, 7, ...} D. The set of prime numbers
94	The set of integers is a subset of	A. The set of natural numbers B. The set of whole numbers C. The set of prime numbers D. The set of rational numbers
95	The set of real numbers is a subset of	A. The set of natural numbers B. The set of rational numbers C. The set of integers D. The set of complex numbers
96	The set of rational numbers is subset of	A. The set of natural numbers B. The set of real numbers C. The set of integers D. The set of whole numbers
97	{1, 2, 3} is _____	A. an infinite set B. A finite set C. A singleton set D. Universal set
98	$A = B$ if	D. A is equivalent to B
99	Question Image	A. An empty set B. Universal set C. A singleton set D. None of these
100	Question Image	A. A is proper subset of B B. A is an improper subset of B C. A is equivalent to B D. B is subset of A
101	Question Image	A. An empty set B. Universal set C. A singleton set D. None of these
102	Question Image	A. A finite set B. An infinite set C. An empty set D. None of these
103	The sets {1, 2, 4} and {4, 6, 8, 10} are	A. Equal sets B. Equivalent sets C. Disjoint sets D. Overlapping sets
104	$A - B =$ _____	
105	Which of the following sets is infinite	A. The set of students of your class B. The set of all schools in Pakistan C. The set of natural numbers between 3 and 10 D. The set of rational numbers between 3 and 10
106	Which of the following sets is finite	A. The set of natural numbers between 3 and 10 B. The set of rational numbers between 3 and 10 C. The set of real numbers between 0 and 1 D. The set of rational numbers between 0 and 1
107	A set having only one element is called	A. An empty set B. Universal set C. A singleton set D. A power set
108	Question Image	

109	If $n(A) = n$ then $n(P(A))$ is	A. $2n$ B. $n^{2/2}$ C. $n/2$ D. $2^{n/2}$
110	What is the number of elements of the power set of $\{0, 1\}$	A. 1 B. 2 C. 3 D. 4
111	What is the number of elements of the power set of $\{\}$	A. 0 B. 1 C. 2 D. 3
112	Write down the power set of $\{9, 11\}$	
113	If A and B are two sets then intersection of A and B is denoted by	
114	Two sets A and B are said to be disjoint if	
115	Question Image	
116	Question Image	
117	Question Image	
118	Question Image	
119	Question Image	
120	Question Image	
121	Question Image	
122	Question Image	
123	Question Image	
124	Question Image	A. A B. B C. $A \cap B'$ D. $B \cap A$
125	Question Image	
126	Question Image	
127	Question Image	A. A B. $A'$ C. U D. $A \cap A'$
128	Question Image	B. A C. $A'$ D. U
129	Question Image	A. A B. $A'$ C. U D. $U'$
130	Question Image	A. A B. $A'$ C. U D. None of these
131	Question Image	A. $n(A)$ B. $n(B)$ C. 0 D. 1
132	Question Image	A. A B. B C. U D. None of these
133	Question Image	A. A B. B C. U D. None of these
134	Question Image	A. A B. $A'$

134	Question Image	C. U D. None of these
135	A statement which is either true or false is called	A. Induction B. Deduction C. Proposition D. Logic
136	If P is a proposition then its negative is denoted by	
137	If p and q are two statements then their conjunction is denoted by	
138	A conditional "if p then q" is denoted by	
139	If p and q are two statements then their biconditional 'p if q' is denoted by	
140	If we have a statement "if p then q" then q is called	A. Conclusion B. Implication C. Unknown D. Hypothesis
141	Question Image	A. Conclusion B. Implication C. Antecedent D. Hypothesis
142	Question Image	A. Biconditional B. Implication C. Antecedent D. Hypothesis
143	Question Image	
144	Question Image	
145	Question Image	
146	The number of subsets of a set having three elements is	A. 4 B. 6 C. 8 D. none of these
147	If A and B are two sets then any subset R of $A \times B$ is called	A. relation on A B. relation on B C. relation from A to B D. relation from B to A
148	If A and B are two sets then any subset R of $B \times A$ is called	A. relation on A B. relation on B C. relation from A to B D. relation from B to A
149	If A is a set then any subset R of $A \times A$ is called	A. relation on A B. relation on B C. relation from A to B D. relation from B to A
150	The set of first elements of the ordered pairs in a relation is called its	A. domain B. range C. relation D. function
151	Question Image	
152	Question Image	
153	Question Image	
154	Question Image	
155	Question Image	
156	Question Image	A. a constant function B. linear function C. quadratic function D. none of these
157	The graph of a linear function is	A. a circle B. triangle C. a straight line D. none of these
158	Question Image	A. square root function B. identity function



158	Question Image	<p>           A. identity function            B. linear function            C. linear function            D. quadratic function         </p>
159	Question Image	<p>D. none of these</p>
160	The negation of a number	<p>           A. a relation            B. a function            C. unary operation            D. binary operation         </p>
161	Question Image	<p>D. none of these</p>
162	Question Image	
163	<p> <math>Z</math> is the set of integers, <math>(Z, *)</math> is a group with <math>a * b = a + b + 1</math>, <math>a, b \in G</math>. then inverse of <math>a</math> is         </p>	<p>           A. <math>-a</math>            B. <math>a + 1</math>            C. <math>-2 - a</math>            D. None of these         </p>
164	<p> <math>G = \{e, a, b, c\}</math> is an Abelian group with <math>e</math> as identity element. The order of the other elements are         </p>	<p>           A. 2, 2, 2            B. 3, 3, 3            C. 2, 2, 4            D. 2, 3, 4         </p>
165	Question Image	
166	Question Image	<p>           A. 4            B. 3            C. 2            D. 1         </p>
167	Question Image	<p>           A. <math>A = C</math>            B. <math>A = B</math>            C. <math>B = C</math>            D. None of these         </p>
168	The complement of set $A$ relative to universal set $U$ is the set	
169	The multiplicative inverse of $x$ such that $x \neq 0$ is	<p>           A. <math>-x</math>            B. does not exist            C. <math>1/x</math>            D. 0         </p>
170	Multiplicative inverse of "1" is	<p>           A. 0            B. -1            C. 1            D. <math>\{0, 1\}</math> </p>
171	<p>           In a 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 students enrolled for English cannot 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         </p>	<p>           A. 40            B. 30            C. 50            D. 20         </p>
172	Which of the following is the subset of all sets?	
173	The set $\{\{a, b\}\}$ is	<p>           A. Infinite set            B. Singleton set            C. Two points set            D. None         </p>
174	The set of the first elements of the ordered pairs forming a relation is called its	<p>           A. Function on <math>B</math>            B. Range            C. Domain            D. <math>A</math> into <math>B</math> </p>
175	The graph of a quadratic function is	<p>           A. Circle            B. Ellipse            C. Parabola            D. Hexagon         </p>
176	The set of complex numbers forms a group under the binary operation of	<p>           A. Addition            B. Multiplication            C. Division            D. Subtraction         </p>
177	The multiplicative inverse of -1 in the set $\{1, -1\}$ is	<p>           A. 1            B. -1            C. 0            D. Does not exist         </p>
		<p>           A. Addition            B. Subtraction            C. Multiplication            D. Division         </p>

178	The set $\{1, -1, 1, -1\}$ , form a group under	B. Multiplication C. Subtraction D. None
179	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
180	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
181	The set $(Q, .)$	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
182	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
183	For any set B, $B \cup B'$ is	A. Is set B B. Set B' C. Universal set D. None of these
184	Question Image	A. A B. B C. A' D. None of these
185	In set builder notation the set $\{0, 1, 2, \dots, 100\}$ can be written as	
186	Question Image	A. 3 B. 1 C. 2 D. 4
187	Question Image	A. 1 B. 12 C. 5 D. 29
188	Question Image	A. $A = B$ B. $B = C$ C. $A = C$ D. None of these
189	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
190	Question Image	
191	The set $\{-1, 1\}$ is closed under the binary operation of	A. Addition B. Multiplication C. Subtraction D. Division
192	Multiplicative inverse of "1" is	A. $\pm 1$ B. 0 C. 1 D. None of these
193	If a set S contains "n" elements then $P(S)$ has ..... number of elements	A. $2^{<sup>n</sup>}$ B. $2^{<sup>2n</sup>}$ C. $2 \cdot n$ D. $n^{<sup>2</sup>}$
194	Additive inverse of $-a - b$ is	A. a B. $-a + b$ C. $a - b$ D. $a + b$
195	Question Image	A. $1/x$ B. $-x$ C. $2x$ D. $0.5x$
196	Question Image	A. $-x$ B. Infinite set C. $\{-4, 4\}$ D. None of these

197	The identity elements with respect to subtraction is	<p>A. 0</p> <p>B. 1</p> <p>C. -1</p> <p>D. Does not exist</p>
198	Multiplicative inverse of 0 is	<p>A. 0</p> <p>B. 1</p> <p>C. +1</p> <p>D. Does not exist</p>
199	Decimal part of irrational number is	<p>A. Terminating</p> <p>B. Repeating only</p> <p>C. Neither repeating nor terminating</p> <p>D. Repeating and terminating</p>
200	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.	<p>A. 45</p> <p>B. 30</p> <p>C. 25</p> <p>D. 50</p>
201	$\Phi$ set is the _____ of all sets?	<p>A. Subset</p> <p>B. Union</p> <p>C. Universal</p> <p>D. Intersection</p>
202	Question Image	<p>A. Singleton set</p> <p>B. A set with two points</p> <p>C. Empty set</p> <p>D. None of these</p>
203	The set $\{ \{a, b\} \}$ is	<p>A. Infinite set</p> <p>B. Singleton set</p> <p>C. Two points set</p> <p>D. Empty set</p>
204	Question Image	
205	If $\#n = (n-5)^2 + 5$ , then find $\#3 \times \#4$ .	<p>A. 54</p> <p>B. 12</p> <p>C. 4</p> <p>D. 9</p>
206	The set of the first elements of the orders pairs forming a relations is called its	<p>A. Relation in B</p> <p>B. Range</p> <p>C. Domain</p> <p>D. Relation in A</p>
207	A function whose range is just one elements is called	<p>A. One-one function</p> <p>B. Constant function</p> <p>C. Onto function</p> <p>D. Identity function</p>
208	The graph of a quadratic function is	<p>A. Circle</p> <p>B. Straight line</p> <p>C. Parabola</p> <p>D. Triangle</p>
209	The function $f\{(x, y) \mid y = ax^2 + bx + c\}$ is	<p>A. One-one function</p> <p>B. Constant function</p> <p>C. Onto function</p> <p>D. Quadratic function</p>
210	To each element of a group there corresponds _____ inverse element	<p>A. Two</p> <p>B. One</p> <p>C. No</p> <p>D. Three</p>
211	The set of integer is	<p>A. Finite group</p> <p>B. A group w.r.t addition</p> <p>C. A group w.r.t multiplication</p> <p>D. Not a group</p>
212	Question Image	<p>A. Addition</p> <p>B. Multiplication</p> <p>C. Division</p> <p>D. Both addition and multiplication</p>
213	The set $\{-1, 1\}$ is	<p>A. Group under the multiplication</p> <p>B. Group under addition</p> <p>C. Does not form a group</p> <p>D. Contains no identity element</p>
214	The multiplicative inverse of -1 in the set $\{1, -1\}$ is	<p>A. 1</p> <p>B. -1</p> <p>C. +1</p> <p>D. 0</p>

A. Commutative group w.r.t addition  
 B. Commutative group w.r.t multiplication

215	The set of complex numbers forms	B. Commutative group w.r.t multiplication C. Commutative group w.r.t division D. Non commutative group w.r.t addition
216	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
217	The set $R$ is _____ w.r.t subtraction	A. Not a group B. A group C. No conclusion drawn D. Non commutative group
218	The set $\{Z \setminus \{0\}\}$ is group w.r.t	A. Addition B. Multiplication C. Division D. Subtraction
219	The statement that a group can have more than one identity elements is	A. True B. False C. Ambiguous D. Some times true
220	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
221	Which of the following statement is true?	A. A set is a collection of non-empty object B. A set is a collection of only numbers C. a set is any collection of things D. a set is well-defined collection of objects
222	If $T = \{2, 4, 6, 8, 10, 12\}$ , then	A. $T =$ (First six natural numbers) B. $T =$ (First six odd numbers) C. $T =$ (First six real numbers) D. $T =$ ( First six even numbers)
223	Which of the following is the definition of singleton	A. The objects in a set B. A set having no element C. A set having no subset D. None of these
224	If $S = \{3, 6, 9, 12, \dots\}$ , then	A. $S =$ Four multiples of 3 B. $S =$ Set of even numbers C. $S =$ Set of prime numbers D. $S =$ All multiples of 3
225	If $P = \{x/x = p/q \text{ where } p, q \in Z \text{ and } q \neq 0\}$ , then $P$ is the set of	A. Irrational numbers B. Even numbers C. Rational numbers D. Whole numbers
226	$A = B$ iff	A. All elements of $A$ also the elements of $B$ B. $A$ and $B$ should be singleton C. $A$ and $B$ have the same number of elements D. If both have the same element
227	The set of months in a year beginning with S.	A. $\{\text{September, October, November}\}$ B. Singleton set C. Null set D. Empty set
228	$P \notin A$ means	A. $\langle i \rangle P \langle /i \rangle$ is subset of $A$ B. $\langle i \rangle P \langle /i \rangle$ is an element of $A$ C. $\langle i \rangle P$ does not belongs to $A \langle /i \rangle$ D. $A$ does not element of $\langle i \rangle P \langle /i \rangle$
229	If there is one-one correspondence between $A$ and $B$ , then we write.	A. $A = B$ B. $A \subseteq B$ C. $A \supseteq B$ D. $A \sim B$
230	if $A = \{x/x \in Q \wedge 0 < x < 1\}$ , the $A$ is	A. Infinite set B. Finite set C. Set of rational numbers D. Set of real numbers
231	Empty set is	A. Not subset of every set B. Finite set C. Infinite set D. Not the member of real numbers
232	Every set is an improper subset of	A. Empty set B. Equivalent set C. Itself D. Singleton set

233	$\{0\}$ is a	<p>A. Empty set  B. Singleton set  C. Zero set  D. Null Set</p>
234	Z is a	<p>A. Infinite set  B. Finite set  C. Singleton set  D. Set of all integers</p>
235	If $A = \{x/x \text{ is a positive integer and } 4 \leq x < 23\}$ , then $A =$	<p>A. <math>\{1, 2, 3, 4, 5, 6, 7\}</math>  B. <math>\{4, 5, 6, \dots, 22\}</math>  C. <math>\{1, 2, 3, \dots, 23\}</math>  D. <math>\{1, 2, 3, 4, 5\}</math></p>
236	If $C = \{p/p < 18, p \text{ is a prime number}\}$ , then $C =$	<p>A. <math>\{2, 3, 4, \dots, 17\}</math>  B. <math>\{2, 4, 6, 8, \dots, 16\}</math>  C. <math>\{1, 3, 5, 7, 9, 11, 13, 15, 17\}</math>  D. <math>\{3, 6, 9, 12, 15\}</math></p>
237	If $a = \{2m/2m < 9, m \in p\}$ , the $(n A) =$	<p>A. <math>\{2, 3, 4, 5, 6, 7, 8\}</math>  B. <math>\{2, 4, 6, 8, \dots, 16\}</math>  C. <math>\{4, 6\}</math>  D. <math>\{2, 3, 5, 7\}</math></p>
238	If $B = \{x/x \in Z^+ - 3 < x < 6\}$ , then $n(B) =$	<p>A. 5  B. <math>\{-3, -2, -1, 0, 1, 2, 3, 4, 5, 6\}</math>  C. 8  D. 9</p>
239	If $O = \{1, 3, 5, \dots\}$ , then $n(O) =$	<p>A. Infinite  B. Even numbers  C. odd integers  D. 99</p>
240	If $A = \{2m/m^3 = 8, m \in Z\}$ then $A =$	<p>A. <math>\{1, 8, 27\}</math>  B. <math>\{4\}</math>  C. <math>\{2, 4, 6\}</math>  D. <math>\{2, 16, 54\}</math></p>
241	If $A \subseteq B$ , and B is a finite set, then	<p>A. <math>n(A) \leq n(B)</math>  B. <math>n(B) \leq n(A)</math>  C. <math>n(A) \leq n(B)</math>  D. <math>n(A) \geq n(B)</math></p>
242	The set of even prime numbers is	<p>A. <math>\{2, 4, 6, 8, 10\}</math>  B. <math>\{2, 4, 6, 8, 10, 12\}</math>  C. <math>\{1, 3, 5, 7, 9\}</math>  D. <math>\{2\}</math></p>
243	If $D = \{a\}$ , the $P(D) =$	<p>A. <math>\{a\}</math>  B. <math>\{\emptyset\}</math>  C. <math>\{\emptyset, \{a\}\}</math>  D. <math>\{\emptyset, a\}</math></p>
244	If $E = \{\}$ , then $P(E)$	<p>A. <math>\emptyset</math>  B. <math>\{\}</math>  C. <math>\{(2), (4), (6), \dots\}</math>  D. <math>\{\emptyset\}</math></p>
245	The number of subset of $\{0\}$ is	<p>A. 1  B. 2  C. 3  D. None</p>
246	The many subset can be formed from the set $\{a, b, c, d\}$	<p>A. 8  B. 4  C. 12</p>

D. 16

247 The number of proper subset of  $A = \{a, b, c, d\}$  is

- A. 3
- B. 6
- C. 8
- D. 15

248 The number of subsets of  $B = \{1, 2, 3, 4, 5\}$

- A. 10
- B. 32
- C. 16
- D. 5

249 0 is a symbol of

- A. singleton set
- B. Empty set
- C. Equivalent set
- D. Infinite set

250 Every subset of a finite set is

- A. Disjoint
- B. Null
- C. Finite
- D. Infinite