

## ECAT Mathematics Chapter 2 Set Function and Groups Online Test

Sr	Questions	Answers Choice
1	Every subset of a finite set is	A. Disjoint B. Null <b>C. Finite</b> D. Infinite
2	0 is a symbol of	A. singleton set <b>B. Empty set</b> C. Equivalent set D. Infinite set
3	The number of subsets of B = {1,2,3,4,5}	A. 10 <b>B. 32</b> C. 16 D. 5
4	The number of proper subset of A = {a,b,c,d} is	A. 3 B. 6 C. 8 <b>D. 15</b>
5	The many subset can be formed from the set {a,b,c,d}	A. 8 B. 4 C. 12 <b>D. 16</b>
6	The number of subset of {0} is	A. 1 <b>B. 2</b> C. 3 D. None
7	If E = { }, then P(E)	A. $\emptyset$ B. { } C. {(2),(4),(6),...} <b>D. (<math>\emptyset</math>)</b>
8	If D = {a} , the P(D) =	A. {a} B. <p class="MsoNormal"><!--[if gte msEquation 12]><m:oMathPara><m:oMath><i style="mso-bidi-font-style: normal"><span style='font-family: "Cambria Math", serif; mso-bidi-font-family: Calibri; mso-bidi-theme-font: minor-latin'><m:r> $\emptyset$ </m:r></span></i></m:oMath></m:oMathPara><![endif]--><!--[if !msEquation]--><span style="line-height: 107%;"><!--[if gte vml 1]><v:shapetype id=_x0000_t75" coordsize="21600,21600" o:spt="75" o:preferrelative="t" path="m@4@5@4@11@9@11@9@5xe" filled="f" stroked="f"> <v:stroke joinstyle="miter"/> <v:formulas> <v:f eqn="if lineDrawn pixelLineWidth 0"/> <v:f eqn="sum @0 1 0"/> <v:f eqn="sum 0 0 @1"/> <v:f eqn="prod @2 1 2"/> <v:f eqn="prod @3 21600 pixelWidth"/> <v:f eqn="prod @3 21600 pixelHeight"/> <v:f eqn="sum @0 0 1"/> <v:f eqn="prod @6 1 2"/> <v:f eqn="prod @7 21600 pixelWidth"/> <v:f eqn="sum @8 21600 0"/> <v:f eqn="prod @7 21600 pixelHeight"/> <v:f eqn="sum @10 21600 0"/> </v:formulas> <v:path o:extrusionok="f" gradientshapeok="t" o:connecttype="rect"/> <o:lock v:ext="edit" aspectratio="t"/> </v:shapetype><v:shape id=_x0000_i1025" type="#_x0000_t75" style='width:6.75pt; height:14.25pt'> <v:image data-src="file:///C:/Users/Softsol/AppData/Local/Temp/msoshmlclip1/01/clip_image001.png" o:title="" chromakey="white"/> </v:shape><![endif]--><!--[if !vml]--><!--[endif]--></span><!--[endif]--><o:p></o:p></p>
9	The set of even prime numbers is	A. {2,4,6,8,10} B. {2,4,6,8,10,12} C. {1,3,5,7,9} <b>D. {2}</b>
10	If $A \subseteq B$ , and B is a finite set, then	A. $n(A) < n(B)$ B. $n(B) < n(A)$ <b>C. <math>n(A) \leq n(B)</math></b> D. $n(A) \geq n(B)$
11	If $A = \{2m/m^3 = 8, m \in \mathbb{Z}\}$ then $A = \boxed{\quad}$	A. {1,8,27} <b>B. {4}</b> C. {2,4,6} D. {2,16,54}

- 12 If  $O = \{1, 3, 5, \dots\}$ , then  $n(O) =$   
A. Infinite  
B. Even numbers  
C. odd integers  
D. 99
- 13 If  $B = \{x/x \in Z \wedge -3 < x < 6\}$ , then  $n(B) =$   
A. 5  
B.  $\{-3, -2, -1, 0, 1, 2, 3, 4, 5, 6\}$   
C. 8  
D. 9
- 14 If  $a = \{2m/2m < 9, m \in p\}$ , then  $(n A) =$   
A.  $\{2, 3, 4, 5, 6, 7, 8\}$   
B.  $\{2, 4, 6, 8, \dots, 16\}$   
C.  $\{4, 6\}$   
D.  $\{2, 3, 5, 7\}$
- 15 If  $C = \{p/p < 18, p \text{ is a prime number}\}$ , then  $C =$   
A.  $\{2, 3, 4, \dots, 17\}$   
B.  $\{2, 4, 6, 8, \dots, 16\}$   
C.  $\{1, 3, 5, 7, 9, 11, 13, 15, 17\}$   
D.  $\{3, 6, 9, 12, 15\}$
- 16 If  $A = \{x/x \text{ is a positive integer and } 4 \leq x \leq 23\}$ , then  $A =$   
A.  $\{1, 2, 3, 4, 5, 6, 7\}$   
B.  $\{4, 5, 6, \dots, 22\}$   
C.  $\{1, 2, 3, \dots, 23\}$   
D.  $\{1, 2, 3, 4, 5\}$
- 17  $Z$  is a  
A. Infinite set  
B. Finite set  
C. Singleton set  
D. Set of all integers
- 18  $\{0\}$  is a  
A. Empty set  
B. Singleton set  
C. Zero set  
D. Null Set
- 19 Every set is an improper subset of  
A. Empty set  
B. Equivalent set  
C. Itself  
D. Singleton set
- 20 Empty set is  
A. Not subset of every set  
B. Finite set  
C. Infinite set  
D. Not the member of real numbers
- 21 If  $A = \{x/x \in Q \wedge 0 < x < 1\}$ , then  $A$  is  
A. Infinite set  
B. Finite set  
C. Set of rational numbers  
D. Set of real numbers
- 22 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.  $A \sim B$
- 23  $P \notin A$  means  
A.  $P$  is subset of  $A$   
B.  $P$  is an element of  $A$   
C.  $P$  does not belong to  $A$   
D.  $P$  is not element of  $A$
- 24 The set of months in a year beginning with S.  
A.  $\{\text{September, October, November}\}$   
B. Singleton set  
C. Null set  
D. Empty set
- 25  $A = B$  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
- 26 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
- 27 If  $S = \{3, 6, 9, 12, \dots\}$ , then  
A.  $S = \text{Four multiples of 3}$   
B.  $S = \text{Set of even numbers}$   
C.  $S = \text{Set of prime numbers}$   
D.  $S = \text{All multiples of 3}$
- 28 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
- 29 If  $T = \{2, 4, 6, 8, 10, 12\}$ , then  
A.  $T = (\text{First six natural numbers})$   
B.  $T = (\text{First six odd numbers})$   
C.  $T = (\text{First six real numbers})$

- C.  $T = \{ \text{first six real numbers} \}$   
D.  $T = \{ \text{First six even numbers} \}$

30 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