SETS

EQUAL SETS

EXERCISE

Q.1 Are the following two sets equal?

(a) {1,2,3} and {2,3,4}

(b) {1,3,5} and {1,3,5,7}

(c) {3,4,7} and {7,4,3}

(d) {1,2,7} and {2,7,1,4}

Q.2 Consider set A as the set of prime numbers less than 6, and set B as the set of prime factors of 30. Sets A and B are _____.

(a) Infinite (b) Empty (c) Singleton (d) Equal

Q.3 A= {0} and B= {}. Are sets A and B are equal?

(a) True (b) False

Q.4 Consider X as the set of letters in the word "ALLOY" and Y as the set of letters in the word "LOYAL." Are the sets equal?

(a) True (b) False

Q.5 Which sets are identical?

X= {x : x-4=0 and x is a natural number},

Y= { x : x^2=16 and x is a natural number},

Z= {x : x>4 and x<16, x is a natural number}

(a) X and Y (b) Y and Z (c) X and Z (d) X, Y and Z

Q.6 Which sets among the following are identical?

X={x : x is letter of word LIFE},

Y={x : x is letter of the word WIFE},

Z={x : x is letter of the word FILE}

(a) X and Y (b) Y and Z (c) X and Z (d) X, Y and Z

Q.7 Which sets from the following are identical?

(a) {a, b, c, d} and {d, c, b, a}

(b) {4,8,12,16} and {8,12,16,18}

(c) {x : x is a multiple of 10} and {10,20,30}

(d) {2,4,6,8} and {x : x is an even number}

Q.8 Among the following sets, which ones are identical?

X= {1,-1}, Y={-1,1}, Z={x : x is root of $x^2-1=0$ and x is an integer}

(a) X and Y (b) Y and Z (c) X and Z (d) X, Y and Z

Q.9 Equal sets have the _____ number of elements.

(a) Must have same (b) May have same

(c) Can't have same (d) Shouldn't have different

Q.10 If two sets have an equal number of elements, then they _____

(a) Are equal (b) Are not equal

(c) May be equal (d) Are finite

Q.11 If A = {0}, B = {x: x is a non-negative root of $x^2+2x=0$}, C= {x: $x>10$ and $x<5$},

D = {x: $x^2=36$} then select the correct option.

(a) A=C (b) A=D (c) B=C (d) A=B

Q.12 If A= {1,2,3} and B= {$x \in R$: $x^3-6x^2+11x-6=0$} are sets A and B equaicalent?

(a) True (b) False

Q.13 If A={1,2} and B= {$x \in R$: $x^2-3x+2=0$} what is the relationship between sets A and B?

(a) "A" and "B" are only equivalent sets and not equal

(b) "A" and "B" are equal

(c) "A" and "B" are not Equivalent

(d) "A" and "B" are infinite sets

Q.14 Which of the following statements are accurate?

(a) Equal and Equivalent sets are actually the same

(b) Equivalent sets have a different number of elements

(c) Equal sets have the same elements

(d) Two null sets are not equal

ANSWER KEY

1. (c)

2. (d)

3. (b)

4. (a)

5. (a)

6. (c)

7. (a)

8. (d)

9. (a)

10. (c)

11. (d)

12. (a)

13. (b)

14. (c)