ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT – Arithmetic **Work sheet 12**

SETS **Date:22.2.21**

Answer all the following questions:

1. A set is denoted by
   a) { }
   b) ( )
   c) [ ]
   d) none of these

2. The set O of odd positive integers less than 10 can be expressed by _____
   a) {1, 2, 3}
   b) {1, 3, 5, 7, 9}
   c) {1, 2, 5, 9}
   d) {1, 5, 7, 9, 11}

3. Which of the following two sets are equal?
   a) A = {1, 2} and B = {1}
   b) A = {1, 2} and B = {1, 2, 3}
   c) A = {1, 2, 3} and B = {2, 1, 3}
   d) A = {1, 2, 4} and B = {1, 2, 3}

4. The set of positive integers is _____
   a) Infinite
   b) Finite
   c) Subset
   d) Empty

5. The members of the set S = {x | x is the square of an integer and x < 100} is _____
   a) {0, 2, 4, 5, 9, 58, 49, 56, 99, 12}
   b) {0, 1, 4, 9, 16, 25, 36, 49, 64, 81}
   c) {1, 4, 9, 16, 25, 36, 64, 81, 85, 99}
   d) {0, 1, 4, 9, 16, 25, 36, 49, 64, 121}

6. The sets {M,A, N} and {B,O,Y} are types of
   a) equal sets
   b) equivalent sets
   c) empty sets
   d) singleton sets

7. The set {0,1,2,3,4,…} is an example of
   a)set of natural numbers
   b)set of real numbers
   c) set of integers
   d)set of whole numbers

8. The set of rational numbers is denoted by
   a) Q
   b) R
   c) Z
   d) N

9. Which of the following statement is correct?
   a) All equal sets are equivalent
   b) All equivalent sets are equal
   c) An empty set is not a null set
   d) {0} is an empty set

10. {x: x is a real number between 1 and 2} is an
    a) Infinite set
    b) Finite set
    c) Empty set
    d) None of the mentioned

11. Convert set {x: x is a positive prime number which divides 72} in roster form:
    a) {2, 3, 5}
    b) {2, 3, 6}
    c) {2, 3}
    d) {ø}

12. Express {x: x= n/ (n+1), n is a natural number less than 7} in roster form:
    a) {½, ⅔, ⅘, ⅙}

b) {½, ⅔, ¾, ⅘, ⅚, ⅙, ⅞}
c) {½, ⅔, ¾, ⅘, ⅚, ⅙}
d) Infinite set

13. Which sets are not empty?
a) {x: x is a even prime greater than 3}
b) {x : x is a multiple of 2 and is odd}
c) {x: x is an even number and x+3 is even}
d) { x: x is a prime number less than 5 and is odd}

14. Write set {1, 5, 15, 25,…} in set-builder form :
a) {x: either x=1 or x=5n, where n is a real number}
b) {x: either x=1 or x=5n, where n is a integer}
c) {x: either x=1 or x=5n, where n is an odd natural number}
d) {x: x=5n, where n is a natural number}

15. {x: x is an integer neither positive nor negative} is
a) Empty set
b) Non- empty set
c) Finite set
d) Both b and c

Indranil Ghosh