

ASSIGNMENT (UNIT-1)

Math (| |)

Q1. The set of natural number less than 15 to represent roster form.

Q2. write the following sets in set builder form $A = \{2, 4, 6, 8\}$.

Q3. If $A = \{1, 2, 3\}$ $B = \{3, 4\}$ and $C = \{1, 3, 5\}$ find $A * (B \cap C)$.

Q4. Find $A \cup B$ and $A \cap B$ and $A - B$.

If $A = \{a, b, c, d\}$ and $B = \{c, d\}$

Q5. if a set contains only one element then the set is called.

A. empty set B. infinite set C. null set D. Singleton set

Q6. if $A = \{1, 2, 3\}$ and $B = \{3, 4\}$ find the Cartesian product of A and B.

Q7. if set $A = \{1, 3, 5\}$ $B = \{2, 4, 6\}$ and $C = \{0, 2, 4, 6, 8\}$ then write the universal set for all three sets.

Q8. A class has 60 students, 35 students play football, 40 play cricket and 15 play both. how many students play only one sport.

Q9. In a group of 50 people, 28 have traveled to Europe 31 have traveled to Asia and 10 have traveled to both continents. how many people have not traveled to either continent.

Q10. $D = \{x : x \text{ is a two digit natural number whose digit sum is } 6\}$.

Q11. $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ is a set then find the cardinality of a set.

Q12. Write the set $E = \{1/2, 2/3, 3/4, 4/5, 6/7, 7/8, 8/9\}$ convert into a set builder form.

Q13. let $X = \{1, 2, 3, 4, 5, 6\}$ if n represents any member of x express the following set.

- (i) $n \in X$ but $2n \notin X$
- (ii) $n+5=8$
- (iii) n is greater than 4

Q14 If $y = \{ 1, 2, 3, \dots, 10 \}$ and a represents any element of Y , write the following sets, containing all the elements satisfying the given conditions,

(i) $a \in Y$ but $a^2 \notin Y$

(ii) $a + 1 = 6, a \in Y$

(iii) a is less than 6 and $a \in Y$

Q15. Write the given statement in two methods of representation of a set the set of all integers that lies between -1 to 5.