

Assignment 2

1) What is Venn diagram? Explain in detail the Application of Venn diagram.

ANS: A Venn diagram is an illustration that uses circles to show the relationships among things or finite groups of things. Circles that overlap have a commonality while circles that do not overlap do not share those traits.

Venn diagrams help to visually represent the similarities and differences between two concepts. They have long been recognized for their usefulness as educational tools. Since the mid-20th century, Venn diagrams have been used as part of the introductory logic curriculum and in elementary-level educational plans around the world.

APPLICATION OF VENN DIAGRAM:

Although Venn diagrams are primarily a thinking tool, they can also be used for assessment.

WHEN WE USE:

Venn diagram are used to compare and contrast group of things.

They are useful tool for formative assessments because they :

- Can be used to generate discussions.
- And provide teachers with information about student's thinking

In science they are helpful for classification.

As an accepted convention for representing similarities and differences, knowing how to use them contributes to Key Competency, Using Language, Symbols and texts.

HOW THE STRATEGY WORKS:

A Venn diagram consists of overlapping circles. Each circle contains all the elements of the set. Where the circle overlap shows her elements that the set have in common. Generally there are two or three circles.

2) What is Union? Draw Membership table for union using different examples.

ANS: The union (denoted by \cup) of a collection of sets is the set of all elements in the collection. It is one of the fundamental operations through which sets can be combined and related to each other. For explanation of the symbols used in this article, refer to the table of mathematical symbols.

<u>A</u>	<u>B</u>	<u>A\cupB</u>
<u>1</u>	<u>1</u>	<u>1</u>
<u>1</u>	<u>0</u>	<u>1</u>
<u>0</u>	<u>1</u>	<u>1</u>
<u>0</u>	<u>0</u>	<u>0</u>

3) What is Intersection? Draw Membership table for intersection using different examples.

ANS: The intersection of two sets A and B, denoted by $A \cap B$, is the set of all objects that are members of both the sets A and B. In symbols, That is, x is an element of the intersection $A \cap B$ if and only if x is both an element of A and an element of B.

A	B	$A \cap B$
1	1	1
0	1	0
1	0	0

4) What is Difference? Draw Membership table for Set difference using different examples.

ANS: If A and B are two sets, then their difference is given by $A - B$ or $B - A$

- If $A = \{2,3,4\}$ and $B = \{4,5,6\}$

$A - B$ means elements of A which are not the elements of B.

i.e. In the above example $A - B = \{2,3\}$

A	B	A - B
1	1	0
1	0	1
0	1	0
0	0	0