**I) Meaning of Venn Diagram**

**II)Importance of Venn Diagram**

1. A **Venn Diagram** is a widely used diagram style that shows the logical relation between sets, popularized by John Venn. A Venn diagram uses overlapping circles or other shapes to illustrate the logical relationships between two or more sets of items. Often, they serve to graphically organize things, highlighting how the items are similar and different.

**II)** The importance of Venn Diagram **is used to reason through the logic behind statements or equations**, such as the Boolean logic behind a word search involving “or” and “and” statements and how they’re grouped.

-Venn diagrams **are used to determine the validity of particular arguments and conclusions**. In deductive reasoning, if the premises are true and the argument form is correct, then the conclusion must be true. For example, if all dogs are animals, and our pet Mojo is a dog, then Mojo has to be an animal. If we assign variables, then let’s say dogs are C, animals are A, and Mojo is B. In argument form, we say: All C are A. B is C.

Venn diagram are another method which can **be used to determine categorical syllogisms valid or invalid.** As always, an argument is valid if the premise forces the conclusion in other words, if the premises are assumed to be true (even if they are not actually true, we can pretend that they are momentarily) would the conclusion then necessarily be true as well? If the answer is yes, then the argument is valid, and if the answer is no, then the argument is invalid. In the language of Venn diagrams, the argument is valid if all of the information on the conclusion diagram is in the premise diagram.