



STUDY MATERIAL
VIVEKANANDA COLLEGE
THAKURPUKUR
NAAC ACCREDITED GRADE-A

Course Title: Western Logic

Paper:CC8

Unit: Venn diagram

Semester:4th

Name of the teacher: Pragya Bhattacharjee

Assistant professor, Dept. of Philosophy

Example of venn diagram

- All underwater crafts are submarines therefore no submarines are our pleasure vessels, since no pleasure vessels are underwater crafts.

Major Premise: No pleasure vessels are underwater crafts.(E)

Minor Premise: All under all underwater crafts are submarines(A)

Conclusion: No submarines are our pleasure vessels(E)

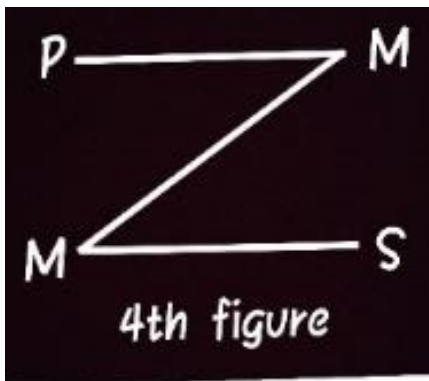
Underwater crafts= M

Pleasure vessels = P

submarine = S

The name of the mood is EAE

This is a syllogism of 4th figure



E=PM

A=MS

E=SP



- In order to represent the major premise which is an Universal proposition we have to Shade the PM region. The minor premise is also an Universal proposition, hence, we have to shade the $M\bar{S}$ region. For the conclusion, we have to shade the SP region. While shading the premises, the conclusion has not been diagrammed. Hence, the argument is invalid. On the other hand the minor term is not distributed in the minor premise. However, it is distributed in conclusion. In a categorical syllogism if the minor term is undistributed in minor premise but distributed in the conclusion then the logical fallacy which is committed is called the **fallacy of illicit minor**. Therefore, the above argument is invalid.
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