SYMBOLIC LOGIC

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PRESENTS

SYMBOLIC LOGIC

PART 2

FOR BA III PHILOSOPHY (HONS)

WE USE SYMBOLS IN LOGIC-

- To avoid peripheral difficulties connected with ordinary language.
- To economise the space and time.
- To avoid ambiguity and ascertain objectivity.

REVIEW

We have studied the following in lecture 1 (or part 1)

- Logic is the science of reasoning.
- Reasoning is a special kind of thinking, called inferring.
- Inferring is an activity expressed in language. It is called proposition or statement.

- Statements are of two types :-

1. Simple statement and
- 2.Compound statement.

SIMPLE AND COMPOUND STATEMENTS

- **Simple statement -** It does not contain any other statement as a component. It contains only one subject and one predicate.

e.g.- The author of Godan is popular
(Subject) (predicate)

- ***Compound statement-*** It does contain another statement as a component part. It contains more than one subject and one predicate.

e.g.- horse is black and Cow is white
(sub) (Pre) (Sub) (pre)

CONDITIONS OF COMPOUND STATEMENT

- The component part of a compound Statement must be a statement in its own right.
- If the part is replaced by another statement, it must be meaningful.
- Every statement is either true or false, it is called truth value of a statement.
- The truth value of true statement is true And false statement is false

TYPES OF COMPOUND STATEMENTS

Compound statements are of two types :-

A. Truth functional compound statement and

B. Non- truth functional Compound statement

- ***A.Truth functional compound statement:-*** when the truth value of a compound statement depends on its component, it is called truth functional compound statement .

e.g. :- Shreya is either intelligent or laborious.

- **Non-truth functional compound statement**:-
  When the truth value of a compound statement does not depend on the truth value of its component part ,it is called non-truth functional compound statement.

  e.g. :- I believe that earth is flat .

- Symbolic logic is concerned only with truth functional compound statement.

THANK YOU