# Sentence and Proposition

## Sentence

- Sentence= वाक्य, Proposition= तर्कवाक्य/ प्रतिज्ञप्ति=Statement
- Sentence is the unit or part of some language.
- Sentences can be expressed in all tense (present, past or future)
- Sentence is not able to explain quantity and quality.
- A sentence may be interrogative (प्रश्नवाचक), simple or declarative (घोषड़ात्मक), command or imperative (आदेशात्मक), exclamatory (विस्मय बोधक), indicative (निर्देशात्मक), affirmative (भावात्मक), negative (निषेधात्मक), skeptical (संदेहात्मक) etc.
- Note : Only indicative sentences (संकेतात्मक वाक्य) are proposition.

- All kind of sentences are not proposition, only those sentences are called proposition while they will determine or evaluate in terms of truthfulness or falsity.

- Sentences are governed by its own grammar. (for exp- sentence of hindi language govern by hindi grammar)

- Sentences are correct or incorrect / pure or impure.

- Sentences are may be either true or false.

# Proposition

- Proposition are regarded as the material of our reasoning and we also say that proposition and statements are regarded as same.
- Proposition is the unit of logic.
- Proposition always comes in present tense. (sentences - all tenses)
- Proposition can explain quantity and quality. (sentences- cannot)
- Meaning of sentence is called proposition.
- Sometime more then one sentences can expressed only one proposition.

Example :

1. *पानी बरस रहा है* .(Hindi)

2. *पावुष पड़तो* (Sanskrit)

3. *It is raining (English)*

All above sentences have only one meaning or one proposition.

- Sometimes a sentence may expressed different propositions in different contexts.

  Example:   *Present P.M. is Intelligent.*

  (In 1947 context- Pt. Nehru, In 2020 context- Mr. Narendra Modi)
- Sentences are expressed through its own language But Propositions are Language neutral.
- Proposition <span style="color:red">must be</span> either True or False.

  (Truth and Falsity can be apply only to proposition)
- When a sentence both term like subject and predicate are regarded as noun, then sentence is called proposition.
- We can say that all propositions are sentences, but not all sentences are propositions.

# Components of Proposition (Terms)

- There are three components in every proposition, which are known as <span style="color:red">term</span>.
- By term, we mean any word or word phrase, which is used in a proposition as a subject or predicate.
- <span style="color:red">Subject term</span>- It refers to the assertion or denying something.
- <span style="color:red">Predicate term</span>- It refers to the assertion or denying of what.
- <span style="color:red">Copula</span>- It is defined as negative or affirmative. It comes between subject and predicate term.

  E.g.- *Ram is a good person.*

     (sub)   (copula)         (predicate)

# Classification/ Types of Proposition

- There are 3 types of proposition according to the relation of terms.

- Categorical Proposition- There are no condition (Unconditional) for their assertion.

- Conditional or Hypothetical Proposition- It is also known as a type of compound proposition. This proposition is false, when the antecedent is true and the consequent is false.

- Distinctive proposition- It is also known as a type of compound proposition. It says that this proposition is true, if at least one of the component of proposition are also true.

# Categorical Proposition

- It is regarded as a statement which talks about the relationship between categories/ classes.

- It shows the complete, partial or complete separate connection of one category with another category.

- The Deductive argument formulated by the categorical propositions.

- Categorical propositions are known as the fundamental elements, the building blocks of argument, in the classical account of deductive logic.

# Four kinds of Categorical Propositions

- (A) Acc. to Quantity
    1. Universal
    2. Particular

  Universal Affirmative
  Universal Negative

- (B) Acc. To Quality
    1. Affirmative
    2. Negative

  Particular Affirmative
  Particular Negative

- According to quantity and quality we can find four categorical propositions (निरपेक्ष प्रतिज्ञप्ति)
- 1. Universal Affirmative  (सर्वव्यापी स्वीकारात्मक)          - A  Proposition
  2. Universal Negative  (सर्वव्यापी निषेधात्मक)          - E  Proposition
  3. Particular Affirmative  (अंशव्यापी स्वीकारात्मक)          - I  Proposition
  4. Particular Negative  (अंशव्यापी निषेधात्मक)          - O Proposition

# Identification of Categorical Proposition

## 1. A – Proposition

| Main Identity | Other words to identify | Standard Form |
|---|---|---|
| • All<br>• सभी | • Each, every, any, always, certainly, absolutely, in all cases, necessarily<br>• If these words comes along with 'Not'(e.g- not each…) then it will became O proposition | • All S is P<br><br>• All politicians(S) are liars(P)<br><br>• S $\overline{P}$ = 0 |

## 2. E – Proposition

| Main Identity | Other words to identify | Standard Form |
|---|---|---|
| • No<br>• कोई…..नही | • Never, none, in no case, not a single | • No S is P<br>• No politicians(S) are liars(P)<br>• S P = 0 |

# Identification of Categorical Proposition

## 3. I – Proposition

| Main Identity | Other words to identify | Standard Form |
|---|---|---|
| • Some<br>• कुछ | • A few, the few, sometimes, almost all, generally, most, many, perhaps, frequently, often, majority, minority, usually, all but one | • Some S is P<br><br>• Some politicians(S) are liars(P)<br><br>• S P ≠ 0 |

## 4. O – Proposition

| Main Identity | Other words to identify | Standard Form |
|---|---|---|
| • Some…..not<br>• कुछ……नही | • Few, hardly any, scarcely any, seldom | • Some S is not P<br>• Some politicians(S) are not liars(P)<br>• S $\overline{P}$ ≠ 0 |