

History of Logic and study of it's Timeline

Aneesh Panchal (2K20/A6/56), Nimish Makharia (2K20/A7/38)

Logical Reasoning (FEC 32), II Semester
Delhi Technological University

Abstract-

Aim/ Objective: The objective of this research paper is to study about the history of logic and it's timeline. Logic is the science or study of how to evaluate arguments and reasoning. Logic is studied within Philosophy, Mathematics and Computer Science. Aristotle is known as the father of logic. In India, study of logic started by Medhatithi Gautama. There are different Modern logic periods of the timeline viz. Embryonic Period, Algebraic Period, Logician Period, Metamathematical Period and period after World War II. The main objective of this research is to study about the different periods of Modern logic, their importance, their advantages and disadvantages over other. The other main objective of this research is to study about the different periods of Modern logic and their uses by common people that is which type (period) of logic structure people prefer during solving problem or studying about different logics.

Methodology Used: During the research we will going to use the,

➤ ***Analytical and Comparative study method:***

We will be using this method for the comparative study of the history of logic and it's timeline by taking examples and solving same questions using different types of logic.

We will do a basic comparative study to find out the basic and simple advantages and disadvantages of one type (period) of Modern logic over other.

➤ ***Application Based:***

We will be using this method to find out which type (period) of the Modern logic is preferred by common people over other using google forms we will be taking a survey to find out which type (period) of Modern logic is preferred.

We will do a short analysis of the data we obtain from the google form using python programming language and we will also do a simple comprehensive study of the reasons why people prefer one type (period) of Modern logic over other.

Conclusion/ Significance: The significance of the project is that we will get to know about different periods of logic. Their advantages and disadvantages over other.

At the end of the research we will get to know about different periods of logic and get to know whether we are using the good type (period) of logic and which of the period is widely used over the common people.

Conclusions after study:

Answers to the Questions we arose:

1st Question:

Which Period of logic is more important ?

Answer:

All periods of logic are equally important because every period of logic have its own significance in the history of logic. We can't distinguish any of them on the basis of importance.

All periods have their own merits and demerits. So all of the periods are equally important as all of them contribute to the advancement of the logic.

2nd Question:

Which Period of logic have no demerits ?

Answer:

All of the Periods of logic have merits and demerits. But demerits are also equally important for the evolution of new logic.

Simply, Every period has demerits. It is not problem because as far as demerits are there, there remains a scope of new discovery or, evolution of new logic.

3rd Question:

Which Period of logic is most commonly used by people ?

Answer:

Algebraic period is most commonly used by the people for solving a problem.

People generally use Venn Diagram for solving a problem.

Reasons of the people for choosing Algebraic Period:

1. Easy to solve
2. Easy to memorize
3. Easy to visualize
4. Can be easily learned

Some general demerits of Algebraic Period in common people:

1. Difficult to find out quantitative data
2. Sometimes difficult to remember Boolean Algebraic Equations
3. Confusion between symbols and alphabets may take place

Questions that arise when we did case study:

Questions for further research:

- ❖ 2nd preference of people for solving the questions is Embryonic Period. But it have many demerits and also not preferred for accuracy of result. Then why people choose convenience over accuracy ?
- ❖ Is it necessary to teach Logical Reasoning in school. If yes, then why it is not implementing ?
- ❖ Politicians and Media nowadays use Embryonic Period and make us believe that they are right because Embryonic period is based totally upon ordinary language. So is there any alternate method which reduces the fake news and wrong allegations ?