M. A. (PHILOSOPHY)

(MAPY)

Term-End Examination

June, 2025

MPYE-001 : LOGIC

Time : 3 Hours   *Maximum Marks : 100*

*__Note :__ (i)   Answer all the **five** questions.*

(ii) All questions carry equal marks.

*(iii) Answers to question nos. 1 and 2 should be in about **500** words each.*

1. What are Propositions ? Discuss the Aristotelian analysis of propositions.   20

Or

Describe the various kinds of propositions with truth tables.   20

2. Explain the concepts of mood and figure. What factors are responsible for determining mood and figure ?   20

Or

Give an account of Quantification. Explain the quantification rules.   20

3. Answer any *two* of the following questions in about **250** words each :

   (a) What is syllogism ? What is the difference between Deductive and Inductive syllogism ?   10

   (b) What are the characteristics of Dilemma ? What are the methods of avoiding Dilemma ?   10

(c) Draw the symbols for basic logic gates and explain their logical functions.   10

(d) Construct formal proofs of validity for the following arguments :   10

   (i) $(B \vee N) \Rightarrow (K \wedge L)$

        $\neg K$

        $\neg M / \therefore \neg B \wedge \neg M$

   (ii) $(x)[Qx \Rightarrow Rx]$

        $(\exists x)(Qx) / \therefore (\exists x) Rx$

4. Answer any *four* of the following questions in about **150** words each :

(a) Describe Disjunctive Syllogism with example.   5

(b) What are the features of Traditional Logic ? Explain.   5

(c) Explain the difference between reason and inference. 5

(d) What is the significance of terms in Aristotelian logic ? 5

(e) Test the validity of the following using Venn Diagram Method : 5

All musicians are creative people.

Some musicians are politicians.

Therefore some politicians are creative people.

(f) Distinguish between distributive law and commutative law. 5

5. Write short notes on any *five* of the following in about **100** words each :

(a) Square of opposition 4

(b) Sorites   4

(c) Conjunction   4

(d) Validity   4

(e) Truth   4

(f) Connotation   4

(g) Tautology   4

(h) Argumentum ad Baculum   4

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