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MPYE-001

M.A. PHILOSOPHY (MAPY)

Term-End Examination

June, 2024

MPYE-001 : LOGIC

Time : 3 Hours

Maximum Marks : 100

Note : Answer all *five* questions. All questions carry equal marks. Answers to questions 1 and 2 in about **500** words each.

1. Explain Aristotle's analysis of propositions. What is the significance of distribution of terms for Aristotelian logic ? 20

Or

What is dilemma ? What are its various kinds ? What are the ways of avoiding dilemma ? Elucidate. 20

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2. What is Syllogism ? Distinguish between deductive and inductive syllogism with adequate examples. 20

Or

What is the significance of symbols in logic ? Explain the truth values of conjunction, disjunction, implication and equivalence with their truth tables. 20

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

(a) Give an account of the fallacies of relevance with examples. 10

(b) Construct proof of validity for the following : 10

(1) (i) $A \rightarrow B$

(ii) $A \vee (C.D)$

(iii) $\sim B \therefore /C$

(2) (i) $(x) (Hx \rightarrow \sim Px)$

(ii) $(x) (Gx \rightarrow Hx)$

$\therefore / (x) (Gx \rightarrow Px)$

P.T.O.

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- (c) Discuss the problem of Existential Import. What solution was proposed to resolve it ? 10
- (d) Test the validity/invalidity of the following using Venn diagram :
- (i) AI I – 2
- (ii) AI I – 3
4. Answer any *four* of the following in about **150** words each :
- (a) What is the difference between tautology and contingent statement. Explain with examples. 5
- (b) Draw a distinction between connotation and denotation. 5
- (c) What is quantification ? What is the difference between Universal and Existential Quantifier. 5
- (d) Draw the truth table for AND and OR Gates. 5
- (e) What are formal fallacies ? Explain the fallacy of Illicit major. 5

P.T.O.

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- (f) Check the validity of the following agreement using truth table method :
- (i) $A \rightarrow A$
- (ii) $A \therefore B$ 5
5. Write short notes on any *five* of the following in about **100** words each :
- (a) Term
- (b) Hasty generalization 4
- (c) Conditional proof 4
- (d) Laws of thought 4
- (e) Boolean logic 4
- (f) Fuzzy logic 4
- (g) Modus Ponens 4
- (h) Enthymeme 4
