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MPYE-001

M. A. (PHILOSOPHY)
(MAPY)

Term-End Examination

December, 2022

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. Draw a square of opposition to represent the A, E, I and O propositions and explain the nature of relation (contradictory, contrary, subcontrary and subaltern) between these propositions. 20

Or

Explain the meaning of fallacy. Distinguish between formal and informal fallacies.

P. T. O.

2. Explain nine rules of inference and ten rules of replacement. 20

Or

Explain the method of indirect proof. Construct the validity using the method of indirect proof :

(a) $M \Rightarrow (G \wedge E)$

$$(G \vee F) \Rightarrow S$$

$$M \vee F / \therefore S$$

(b) $(D \vee E) \Rightarrow (F \Rightarrow G)$

$$(\neg G \vee H) \Rightarrow (D \wedge F) / \therefore G$$

3. Answer any **two** of the following questions in about **250** words each : 10 each

- (a) Analyse the features of traditional logic and modern logic.
- (b) Explain contradictory, contingent and tautology statements with the help of truth tables.
- (c) Distinguish between truth and validity. Give examples to show that truth and validity are independent.

- (d) Discuss the significance of the 'figure' and 'mood' of categorical syllogism.
4. Answer any *four* of the following questions in about **150** words each : 5 each
- (a) Differentiate between proposition and sentence.
- (b) Explain Venn diagram method of testing validity.
- (c) Distinguish between deduction and induction.
- (d) Construct truth tables for all kinds of truth-functionally compound propositions.
- (e) Explain pure hypothetical syllogism with example.
- (f) What are the characteristics of dilemma ?
5. Write short notes on any *five* of the following in about **100** words each : 4 each
- (a) Argument and Argument forms

- (b) Argumentum ad hominem
- (c) Multi-value logic
- (d) Quantity and Quality
- (e) Conversion
- (f) Major term and minor term
- (g) Sorites
- (h) Denotation