

M.A. PHILOSOPHY (MAPY)

Term-End Examination

February, 2021

MPYE-001 : LOGIC

Time : 3 hours

Maximum Marks : 100

Note :

- (i) Answer all **five** questions.
 - (ii) All questions carry equal marks.
 - (iii) Answers to questions no. 1 and 2 should be in about 500 words each.
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1. Give examples for the following moods and prove validity using special rules of relevant figures : 20

- (a) BARBARA
- (b) FERIO
- (c) DIMARIS
- (d) DISAMIS

OR

What are the two kinds of inferences ? Explain them with illustrations. 20

2. Using IP method, prove that the following expressions are tautologous : 20
- (a) $(M \Rightarrow N) \vee (M \Rightarrow \neg N)$
 - (b) $(M \Rightarrow N) \vee (N \Rightarrow M)$
 - (c) $(M \Rightarrow N) \vee (\neg M \Rightarrow N)$
 - (d) $\{(M \Rightarrow N) \wedge (N \Rightarrow O)\} \Rightarrow (M \Rightarrow O)$

OR

Write an essay about the growth of Symbolic Logic and its utility. 20

3. Answer any *two* of the following in about 250 words each :
- (a) Describe Conversion and Obversion. 10
 - (b) Explain the difference between Truth and Validity. 10
 - (c) Discuss the relevance of Digital logic in the contemporary world. 10
 - (d) Prove with an example that a valid argument in a monadic model turns out to be invalid in a dyadic model. 10
4. Answer any *four* of the following in about 150 words each :
- (a) Describe square of opposition. 5
 - (b) Distinguish between implication and double implication. 5

- (c) Explain the mechanism of proving invalidity with an example. 5
- (d) Differentiate 'Proposition' from 'Sentence' with examples. 5
- (e) Describe Venn Diagram with an example. 5
- (f) What is Figure and Mood in logic ? 5
- 5.** Write short notes on any *five* of the following in about 100 words each :
- (a) Disjunctive Syllogism 4
- (b) Sorites 4
- (c) Argumentum and Populum 4
- (d) Complex Question 4
- (e) De Morgan's Law 4
- (f) Indirect Proof 4
- (g) Universal Instantiation 4
- (h) Multi-Valued Logic 4
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