

00750

M.A. PHILOSOPHY (MAPY)

Term-End Examination

December, 2018

MPYE-001 : LOGIC

Time : 3 hours

Maximum Marks : 100

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- Note :** (i) *Answer all the five questions.*
(ii) *All questions carry equal marks.*
(iii) *Answers to questions no. 1 and 2 must be in about 500 words each.*
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1. Use the method of antilogism and make a list of valid and invalid moods. 20

OR

Use formal methods to construct proof for the following arguments : 20

(a) $(H \Rightarrow I) \wedge (J \Rightarrow K)$

(b) $(I \vee K) \Rightarrow L$

(c) $\neg L / \therefore \neg (H \vee J)$

2. Write an essay about the growth of symbolic logic and its utility. 20

OR

What is Quantification ? Explain the four rules of Quantification in detail. 20

3. Answer **any two** of the following in **not more than 250 words** each :
- (a) Distinguish between square and figure of oppositions. 10
 - (b) Illustrate the kinds of dilemma with example. 10
 - (c) Explain argumentum and hominem and ignoratio elenchi with examples. 10
 - (d) Write truth - tables for basic operators under Boolean algebra. 10
4. Answer **any four** of the following in **not more than 150 words** each :
- (a) Using Zermelo - Fraenkel - Skolem theory, show the distribution of terms in 'All equilateral triangles are equiangular triangles. 5
 - (b) Illustrate pure hypothetical syllogism and mixed hypothetical syllogism. 5
 - (c) Write the equivalent forms for implication and disjunction. 5
 - (d) Construct truth - tables to H.S. and M.T. to show that they are tautologies. 5
 - (e) Elucidate the significance of I.P. 5
 - (f) Draw a Venn Diagram for EAE-IIIrd Figure and check the Validity/Invalidity of this argument. 5
5. Write short notes on **any five** of the following in **not more than 100 words** each :
- (a) Proposition 4
 - (b) Rebuttal of dilemma 4
 - (c) Argumentum ad Populum 4
 - (d) Complex question 4
 - (e) The strengthened Rule of C.P. 4
 - (f) Modus Ponens 4
 - (g) Multiply general proposition 4
 - (h) Fuzzy propositions 4