No. of Printed Pages : 3

MPYE-001

01215

M.A. PHILOSOPHY (MAPY)

Term-End Examination

June, 2016

MPYE-001 : LOGIC

Time : 3 hours *Maximum Marks : **100***

Note : *(i) Answer **all the five** questions.*

*(ii) **All the questions carry equal** marks.*

*(iii) Answers to question no. **1** and **2** should be in about **500** words each.*

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1. State and explain the rules and fallacies of Categorical Syllogism. **20**

OR

Describe five kinds of compound propositions with truth-tables in detail. **20**

2. Explain the salient aspects of the rule of strengthened conditional proof. Construct formal proof for the following argument using the rule of strengthened proof. **20**

$$(P \Rightarrow Q) \vee R$$
$$(R \Rightarrow S)$$
$$\neg S \; / \; \therefore Q \Rightarrow \neg P$$

OR

What is Quantification ? Give an account of the rules of quantification. **20**

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

(a) Distinguish between deduction and induction with suitable examples. **10**

(b) Test the validity or invalidity of the following argument by Venn Diagram method. **10**

"Some philosophers are mathematicians;
Some scientists are philosophers,
$\therefore$ All scientists are mathematicians"

(c) What is fallacy ? Distinguish between formal and informal fallacies. **10**

(d) Explain how truth is related to validity. **10**

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

(a) Explain various classes of terms. **5**

(b) Describe the structure of Disjunctive Syllogism. **5**

(c) Elucidate tautology, contradictory and contingent sentence forms. **5**

(d) Write a note on the role of truth-table in Symbolic Logic. **5**

(e) Construct formal proof for the following argument. **5**

$$(x)\ [Qx \Rightarrow Rx]$$
$$(\exists x)\ (Qx)$$
$$\therefore (\exists x)\ (Rx)$$

(f) Test the validity or invalidity of the following argument by using truth - table. **5**

$$P \Rightarrow Q$$
$$Q \Rightarrow R$$
$$\therefore P \Rightarrow R$$

5. Write a short note on **any five** of the following in about **100** words.

(a) Proposition **4**

(b) Quantity and Quality **4**

(c) Argument form **4**

(d) Argumentum Ad Populum **4**

(e) Invalid Argument **4**

(f) Monadic and Dyadic Models **4**

(g) Fuzzy logic **4**

(h) Bound variable **4**