



K16P 0508

Reg. No. :

Name :

II Semester M.A. Degree (Reg./Supple./Improve.) Examination, March 2016
PHILOSOPHY (2014 Admn. Onwards)
PHI 2C05 : Symbolic Logic

Time : 3 Hours

Max. Marks : 60

PART – A

Answer **any one** question. Answers should **not** exceed **800** words. **Each** answer carries **15** marks.

1. Explain Preliminary Quantification rules.
2. Construct formal proof of validity for the given argument using the given symbols.
Steve took either the bus or the train.
If he took the bus or drove his Own car, then he arrived late and missed the first session. He did not arrive late. Therefore, he took the train. (B, T, C, L, M).

(1×15=15)

PART – B

Answer **any three** questions. Answers should **not** exceed **400** words. **Each** answer carries **10** marks.

3. Construct Truth table for Material Implication.
4. Explain Statement forms.
5. Give an account of simple and compound statements.

P.T.O.



6. Describe Euclidean Geometry.
7. Give justification for the following argument.

1) $[(A \vee \sim B) \vee C] \supset [D \supset (E \equiv F)]$

2) $(A \vee \sim B) \supset [(F \equiv G) \supset H]$

3) $A \supset [(E \equiv F) \supset (F \equiv G)]$

4) $A \quad / \therefore D \supset H$

5) $A \vee \sim B$

6) $(A \vee \sim B) \vee C$

7) $D \supset (E \equiv F)$

8) $(E \equiv F) \supset (F \supset G)$

9) $D \supset (F \equiv G)$

10) $(F \equiv G) \supset H$

11) $D \supset H.$

(3x10=30)

PART - C

Answer **any three** questions. Answers should **not** exceed **200** words. **Each** answer carries **5** marks.

8. Write a note on Predicate variables and attribute variables.
9. Briefly explain conditional proof.
10. Elucidate the Shorter Truth table method.
11. Construct Truth table for De Morgan's Theorem.
12. Prove the following are logically equivalent by using truth table method.

$$[p.(q \vee r)] \equiv [(p \cdot q) \vee (p \cdot r)]$$

(3x5=15)