



K20P 0283

Reg. No. :

Name :

**II Semester M.A. Degree (CBSS – Reg./Suppl./Imp.) Examination, April 2020
(2014 Admission Onwards)
PHILOSOPHY
PHI 2C05 : Symbolic Logic**

Time : 3 Hours

Max. Marks : 60

PART – A

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

1. Demonstrate statement forms.
2. Explain attributes of relations.

(1×15=15)

PART – B

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

3. Write a short essay on truth functional compound statements.
4. Construct formal proof of validity for the following arguments :

a) $K \supset L$

$\therefore K \supset (L \vee M)$

b) $(O \supset \sim p) \cdot (P \supset Q)$

$Q \supset O$

$\sim R \supset P / \therefore R$

c) $X \supset (Y \supset Z)$

$X \supset (A \supset B)$

$X \cdot (Y \vee A)$

$\sim Z / \therefore B$

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5. Elucidate De Morgan's theorem.
6. Explicate rules of replacement.
7. Give an account of quantification rules. **(3×10=30)**

PART – C

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

8. Distinguish between simple and compound statements.
9. Explain briefly the advantages of symbolization.
10. Write a note on logical equivalence.
11. Give an account of formal deductive systems.
12. Elucidate multiply general propositions. **(3×5=15)**