

Ex/PHI/PG/3.4.5/2025

MASTER OF ARTS EXAMINATION, 2025

(2nd Year, 3rd Semester)

PHILOSOPHY

PAPER : PHI/PG/3.4.5

[Optional (Logic) Logic-I]

Time : Two Hours

Full Marks : 30

Use Separate Scripts for Two Groups

All questions carry equal marks

GROUP—A

1. Prove the following in PM : 5+5

(a) $(p \vee q) \supset [(r \vee q) \vee p]$

(b) $[(p \vee q) \vee (q \vee r)] \supset [p \vee (q \vee r)]$

(OR)

2. What are the three senses in which an axiom set can be regarded as consistent? Prove that if an axiom set is consistent in the first sense, it is consistent in the other two senses also.

5+5

3. What is the difference between a formation rule and a transformation rule? Discuss. 5

(OR)

4. What does it mean to say that an axiomatic system is complete? Discuss clearly. 5

PHI-1291

[Turn Over]

(2)
GROUP—B

5. What is conservative extension? Discuss the trouble in introducing a tonk like connective as discussed by Nuel D. Belnap. 3+7=10

(OR)

6. What do you understand by analytically valid inference? Explain with suitable examples. 6+4=10

7. Prove in the system T :

$M(p \rightarrow Lp)$

5

(OR)

8. Prove in the system T :

$Lp \rightarrow Mp$

5

★ ★ ★

PHI-1291

XX24(113)—60