



K26U 0816

Reg. No. :

Name :

Second Semester B.A. Degree (C.B.C.S.S. – O.B.E. – Supplementary)
Examination, April 2026
(2020 to 2023 Admissions)

COMPLEMENTARY ELECTIVE COURSE IN PHILOSOPHY
2C03 PHI : Symbolic Logic and Computer Application

Time : 3 Hours

Max. Marks : 40

PART – A
(Short Answer)

Answer **all** questions. **Each** answer carries **1** mark.

1. Give the binary equivalent of decimal 12.
2. The statement form that has both true and false substitution instances is
3. Define variables.
4. Convert binary equivalent 10101 to its decimal equivalent.
5. Give the symbol of negation.
6. Who invented Boolean logic ?

(6×1=6)

PART – B
(Short Essay)

Answer **any six** questions. **Each** answer carries **2** marks.

7. Write a note on Contingent statement form.
8. What is Material Equivalence ?
9. Distinguish Logic from Symbolic logic.
10. What is a Complex statement ?

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11. Explain disjunction with the help of a truth table.
12. What is an argument ?
13. Examine Tautology as a statement form.
14. Distinguish between decimal number and binary number.

(6×2=12)

PART – C
(Essay)

Answer **any four** questions. **Each** answer carries **3** marks.

15. What is an Argument form ?
16. Define formal proof of validity.
17. Explain De Morgan's theorem.
18. Present the diagrammatic representation and truth table for AND gate.
19. Write a note on Logical equivalence.
20. Draw the truth table for conjunction and negation.

(4×3=12)

PART – D
(Long Essay)

Answer **any two** questions. **Each** answer carries **5** marks.

21. What are the three basic logical operators in Boolean algebra ? Present its truth tables and logic gates.
22. Elucidate on the nature, scope and importance of Symbolic logic.
23. Distinguish between Argument form and Statement form.
24. Explain the various truth functional compound statements with the help of truth table.

(2×5=10)