K20U 0426

Reg. No. : .....

Name : .....

II Semester B.A. Degree CBCSS (OBE) – Regular Examination, April 2020
(2019 Admission)
Complementary Elective Course in Philosophy
2 C03 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. Explain an argument.
2. Define contradiction.
3. Define statement form.
4. What is disjunction ?
5. Define logical gate.
6. Illustrate the symbolization of Modus Ponens. **(6×1=6)**

PART – B **(Short Essay)**

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

7. Explain conjunction, give its truth table.
8. Write a short note on the advantages of symbolization.
9. Convert the following decimal number to binary number 10,11.
10. Give truth table for logical operation 'AND'
11. Explain emotively neutral language.
12. Distinguish between Tautology and contradictory
13. Give truth table for validating the argument form of Modus Ponens.
14. Differentiate simple and compound statements. **(6×2=12)**

P.T.O.

PART – C (**Essay**)

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

15. Differentiate Truth and validity.

16. Convert following binary numbers to decimal numbers.
    $(1110)_2$ $(1011)_2$

17. State De-Morgan's Theorem with Truth-table.

18. Explain briefly Boolean algebra.

19. Identify the validity and invalidity of the following argument form using truth table

    $p \supset q$

    $p \vee q$

    $\therefore q$

20. Differentiate between Modus Ponens and Modus Tollens. **(4×3=12)**

PART – D (**Long Essay**)

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

21. Explain various types of statement forms in detail.

22. Define logic and symbolic logic. Describe the advantages of symbolization.

23. Illustrate with examples what is argument and argument forms and also testing the validity and invalidity of the argument.

24. Explain the Binary number system with the help of decimal number and vice versa. **(2×5=10)**
