## B.Sc. DEGREE EXAMINATION, APRIL 2020 I Year I Semester Digital Logic Fundamentals

### Time : 3 Hours

Max.marks:75

### Section A $(10 \times 2 = 20)$ Marks

### Answer any **TEN** questions

- 1. Draw the symbols of Universal gates.
- 2. What is PLA?
- 3. What is the purpose of Decoder?
- 4. Draw the logic diagram of RS flipflop.
- 5. Give two examples for complement numbers
- 6. Convert  $(127.85)_10$  to  $()_2$
- 7. Draw the truth tables for 3 input OR Gate
- 8. Convert 1101.11 to decimal equivalent.
- 9. Draw the logic diagram of D-flipflop.
- 10. What is the purpose of shift register?
- 11. List down the different types of RAM.
- 12. What is Up down counter?

**Section B**  $(5 \times 5 = 25)$  Marks

#### Answer any **FIVE** questions

- 13. Describe about Karnaugh map with example.
- 14. Write about parity generators in detail.
- 15. Explain about shift registers and its types.
- 16. What is BCD ripple counter? Draw its logic diagram.
- 17. Draw the truth tables for all the flip flops
- 18. Briefly explain about memory addressing.
- 19. Explain about full adder with examples.

# Section C $(3 \times 10 = 30)$ Marks

### Answer any **THREE** questions

- 20. Convert any decimal into a number of base 3, base 4, base 7 and base 16.
- 21. Explain about BCD adder in detail.
- 22. Explain about multiplexer with neat diagram
- 23. Explain about the Master Slave flip flops.
- 24. Explain about ROM in detail.

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