B.Sc. DEGREE EXAMINATION,APRIL 2020
III Year VI Semester
Integrated Electronics

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. Give the symbol of OR gate.
2. Draw AND gate using NOR gate.
3. What is meant by half adder?
4. Define multiplexer.
5. What is a flip flop?
6. What is a shift register?
7. Define CMRR.
8. What is the purpose of a comparator?
9. What is a multivibrator?
10. Draw the pin configuration of 555 timer.
11. State Demorgan's theorem.
12. What is a toggle state?

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Write any five laws of Boolean algebra.
14. Prove that NAND is an universal gate.
15. Explain full adder with truth lable.
16. Explain the working of 3-8 decoder.
17. Explain the working of a BCD counter.
18. Explain the working of a non-inverting amplifier.
19. Explain the action of an astable multivibrator.

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

Answer any **THREE** questions

20. Simplify using K map: Y=F(A,B,C,D) = Σ (0,1,2,4,5,10,11,14,15).
21. Explain the 4- bit adder/subtractor circuit.
22. Explain the working of JK master slave flip flop with diagram.
23. Describe the working of Wein's bridge oscillator.
24. Explain binary weighted method for D/A convertor.

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Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Write any five laws of Boolean algebra.
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15. Explain full adder with truth lable.
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19. Explain the action of an astable multivibrator.

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

Answer any **THREE** questions

20. Simplify using K map: Y=F(A,B,C,D) = Σ (0,1,2,4,5,10,11,14,15).
21. Explain the 4- bit adder/subtractor circuit.
22. Explain the working of JK master slave flip flop with diagram.
23. Describe the working of Wein's bridge oscillator.
24. Explain binary weighted method for D/A convertor.