B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
I Year I Semester
Core Major - Paper I
DIGITAL LOGIC FUNDAMENTALS

Time : 3 Hours **Max.marks :75**

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

Answer any **TEN** questions

1. Define byte.
2. Convert $(27)_{10}$ into a Octal number.
3. State the distributive law.
4. Give the logic diagram of an Inverter Gate.
5. What is encoder?
6. What is even parity?
7. What is flip-flop?
8. What is register?
9. What is ripple counter?
10. What is flash memory?
11. What is EPROM?
12. Expand the following: a)BCD b)PROM

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

Answer any **FIVE** questions

13. Convert the following decimals into Binary (a) 27 (b) 85 and perform the binary addition of the above number.
14. Write about full adder with diagram.
15. Differentiate between SOP and POS.
16. What is Demultiplexer? Explain
17. Draw and explain RS flipflop.
18. What is Cache-memory? Explain in brief.
19. Mention the purpose of encoder.

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

Answer any **THREE** questions

20. Describe in detail about the Universal gates.
21. What is K-map? Simplify using the K-map: Y= F(A,B,C) = $\sum(1, 2, 3, 5, 7)$.
22. Explain the Programmable Array Logic with a neat diagram.
23. What is shift register? List its types and explain
24. State the different categories of RAM and explain in detail.

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