



K20U 0443

Reg. No. :

Name :



II Semester B.C.A. Degree CBSS (OBE)-Regular
Examination, April 2020
(2019 Admission)
Core Course
2B02 BCA : DIGITAL SYSTEMS

Time : 3 Hours

Max. Marks : 40

PART – A

Answer **all** questions (1 mark **each**).

1. What do you mean by XNOR gate ?
2. What is a Bidirectional shift registers ?
3. What is SOP ?
4. What is the octal equivalent of binary number 10111101 ?
5. What is parity generators ?
6. What are the applications of the Hexa decimal system ?

PART – B

Answer **any 6** questions (2 marks **each**).

7. Find the 2's complement of 101110011.
8. State Duality principle.
9. What are operating characteristic of flip-flops ?
10. Explain POS expression using suitable examples.
11. Explain with figures how NAND gate and NOR gate can be used as Universal gate.
12. Explain the purpose of floating point representation.
13. What are the basic functions of master slave flipflops ?
14. What do you mean by BCD Codes ?

P.T.O.



PART – C

Answer **any 4** questions (**3** marks **each**).

15. Explain Flash Memories.
16. Explain the application of ROM, PROM, EPROM.
17. Write short notes on Edge triggered flip flops.
18. State and prove De-Morgan's Theorem.
19. Explain the working of a Shift register.
20. Write short notes on GRAY and UNICODE ?

PART – D

Answer **any 2** questions (**5** marks **each**).

21. What is a demultiplexer ? Explain with suitable block diagram and logic circuit of 1 to 16 demultiplexer.
 22. With a neat diagram, explain the working of a synchronous counters.
 23. Explain Encoder and Decoder.
 24. What are Adders ? Explain different types of Adders ? Draw its diagram.
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