22U572 (Pages: 2) Name: .....

Reg.No: .....

FIFTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, NOVEMBER 2024

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U BCS5 B07 / CC19U BCA5 B07 - COMPUTER ORGANIZATION AND ARCHITECTURE

(Computer Science / Computer Application - Core Course)

(2019 Admission onwards)

Time : 2.00 Hours Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 2 marks.

1. Give the truth tables of XOR an NAND.
2. What is a half adder ? Give its truth table.
3. Define Level trigerring.
4. What are Flip-flops? List types of flip-flops.
5. What is Instruction set completeness?
6. What is an Instruction cycle ? What are the various stages of an instruction cycle?
7. List the various types of Input-Output instructions.
8. What is a Control address register?
9. Define the term micro-program sequencer.
10. What do you mean by hit ratio?
11. Distinguish magnetic tape and magnetic disk.
12. List any two advantage of DMA.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer ***all*** questions. Each question carries 5 marks.

13. Write a brief note on logic gates.
14. Explain BCD to 7 segment decoder with a neat diagram.
15. What are shift registers? Explain any two shift registers in detail with neat diagram.
16. Explain direct and indirect addressing mode with an example.
17. What is a Stack? Write a note about the operations of Memory stack.

18. Explain RISC and CISC.

19. What are interrupts? Write a note on interrupt cycle.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 10 marks.

20. What are counters? Write a detailed note on Ring counter and Johnson's counter.

21. Write a detiled note on Main memory and Auxilliary memory.

(1 × 10 = 10 Marks)

****