20U568 (Pages: 2) Name: .....

Reg.No: .....

FIFTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, NOVEMBER 2022

(CBCSS - UG)

(Regular/Supplementary/Improvement)

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

(Computer Science / Computer Application - Core Course)

(2019 Admission onwads)

Time : 2.00 Hours Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

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

1. Draw the truth table of AND and OR.
2. What is XOR gate ? Give its logic symbol and truth table.
3. What do you mean by edge triggering ? Give an example.
4. What do you mean by Latch ? Give an example.
5. What is an Instruction Code ? Define the term OPCODE.
6. Explain instruction set completeness.
7. List the various phases of an instruction cycle.
8. What is the format of a micro-instruction?
9. What is a control word? Draw its format and explain the various fields.
10. Define hit ratio.
11. What do you mean by I/O interface?
12. What is handshaking in data transfer?

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Describe briefly about look ahead carry adders with block diagram.
14. Write a note on BCD to 7 segment decoder with a neat diagram.
15. Write a short note on Decade counters. Explain with neat diagram.
16. Write a note on Input-Output configuration and explain the purpose of INPR and OUTR.

17. Compare and contrast hardwired and micro-programmed control units.

18. What are Logical and manipulaiton instructions? Give examples.

19. Explain the block diagram of a computer with an input-output processor.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Compare the mode of operations of all types of shift registers.

21. What is an associative memory? Explain how read and write operations are performed on it.

(1 × 10 = 10 Marks)

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