22P163 (Pages: 2) Name: .....

Reg.No: .....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19P CSS1 C05 - COMPUTER ORGANIZATION AND ARCHITECTURE

(Computer Science)

(2019 Admission onwards)

Time : 3 Hours Maximum : 30 Weightage

Part-A

Answer any ***four*** questions. Each question carries 2 weightage.

1. What is an error? How does error detection take place using parity checking?
2. Explain adders with example.
3. What is direct and indirect addressing mode ? Explain with an example.
4. Write a detailed note on memory reference instructions.
5. Explain Micro-programmed control organization.
6. Draw flowchart for multiplication operation.
7. What do you mean by mapping ? Write a shot note on set-associative mapping.

(4 × 2 = 8 Weightage)

Part-B

Answer any ***four*** questions. Each question carries 3 weightage.

8. Explain the concept of universal gates with proper examples.
9. Explain different types of instruction formats in detail.
10. Draw flowchart for add and subtract operations.Explain with an example.
11. What is priority interrupt? Explain various methodes to handle priority interrupt with a neat diagrams.
12. What is asynchronous data transfer? Write a note on Strobe control data transfer method.
13. Explain the block diagram of a computer with an input-output processor.
14. Write a note on Programmable interrupt controller.

(4 × 3 = 12 Weightage)

Part-C

Answer any ***two*** questions. Each question carries 5 weightage.

15. Mention the Flip-flops used in digital circuit.

16. Explain the multiplication using Booth algorithm.

17. Explain the virtual memory translation and TLB with necessary diagram.

18. Draw the pin out of 8085 microprocessor. Give the functional details of each pin.

(2 × 5 = 10 Weightage)

****