FOURTH SEMESTER BTECH DEGREE EXAMINATION

CS202: COMPUTER ORGANISATION & ARCHITECTURE

Model Exam

Time:3 hrs **Max. Marks:100**

PART A

(Answer all questions. Each carry 3 marks)

1. Write codes on condition code.
2. Explain indirect addressing mode with example.
3. Explain PC, IR, MAR, MDR.
4. Explain single bus organization with figure.

PART B

(Answer any two. Each carry 9 marks)

5. Draw and explain with flowchart floating point multiplication division.
6. Explain the term processor stack, stack frame and frame pointer with relation to subroutine processing. Use relevant example.
7. With the help of block diagram write the sequence of steps required for input output operations.

PART C

(Answer all questions. Each carry 3 marks)

8. Differentiate between programmed I/O and Interrupt driven I/O.
9. Define Latency, Bandwidth, Memory Cycle Time.
10. Why DRAM require constant refreshing? How is it done.
11. What is DMA? What is burst mode in DMA?

PART D

(Answer any two. Each carry 9 marks)

12. a. Explain the procedure and packet used for output transfer in USB interface.
    b. Explain Cache Memory.
13. a. Distinguish between sunchronous and asynchronous DRAM.
    b. Explain the important data transfer signals in PCI.
14. a. Explain different types of ROM.
    b. Explain interface circuit with figure.

PART E

(Answer any four questions. Each carries 10 marks)

15. Explain Processor Organization with diagram.
16. Design an ALU with two selection variables S0 and S1 and two selection variable A and B and input carry Cin which performs 8 different micro operations.
17. Explain micro programmed CPU organization with the help lf diagram.
18. Explain micro programme Sequencer with the help of diagram.
19. Explain hardwired control unit design with example.
20. a. Explain the design of Status register
    b. Explain micro programmed control unit design.