Name:.

Reg. No:

FIFTH SEMESTER B.TECH DEGREE EXAMINATION, NOVEMB

AI 09 504 - COMPUTER ORGANISATION AND ARCHITECTU

Time: Three Hours

Maximum:

PART - A

- 1. What is a machine cycle?
- 2. What is a microprogram?
- 3. What is a cache memory?
- 4. Name any four storage devices.
- What are Interleaved memory.

 $(5 \times 2 = 10 \text{ Marks})$

PART - B

- 6. What are subroutines? Give an example.
- 7. What are Read only memories? Explain.
- 8. With a suitable example, explain signed addition and subtraction.
- 9. Write a note on Graphic Input devices.
- 10. Explain SIMD Array processor.
- 11. Briefly explain the floating point number representation.

 $(4 \times 5 = 20 \text{ Marks})$

PART - C

12. (a) With block diagram, explain the basic structure of a computer.

(Or

- (b) Explain the various addressing modes in detail.
- 13. (a) (i) Explain DMA
 - (ii) Explain the performance considerations in memories.

(OT)

- (b) With a suitable example explain the algorithm for multiplication of signed numbers.
- 14. (a) Discuss in detail about pipelining and its types.

(Or)

- (b) Explain in detail about
 - (i) system performance considerations.
 - (ii) Disk Access considerations
- 15. (a) Discuss in detail about parallel processing.

(Or)

- (b) (i) Explain the Interleaved memory organizations.
 - (ii) What are the requirements of vector processing? Explain.

 $(4 \times 10 = 40 \text{ Marks})$
