

15092

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

FIRST SEMESTER

Computer Science

Paper II – COMPUTER ORGANIZATION

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. What are basic functional units of the computer?
2. Explain sub-routines.
3. What is the importance of virtual memory?
4. What are types of output devices?
5. A brief note on interface circuits.
6. How to represents the Addition of positive integers?
7. What are the advantages of secondary storage devices?
8. Explain types and advantages of printers.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. (a) Explain Instructions and instruction sequencing.  
(b) Explain execution of complete instruction.

Or

10. Explain I/O operations and Performance considerations.

11. Explain basic design issues and data transfer in DMA with neat diagram.

Or

12. Explain the types of ROM and RAM Memories.

13. Explain the following. (a) Fast Multiplication (b) Booth Algorithm.

Or

14. Explain a Floating-point numbers and operations. Design of Fast Adders.

15. Explain the basic concepts and performance considerations in Pipelining.

Or

16. Explain SPARC Architecture and Superscalar Operation?

