15092

M.Sc. DEGREE EXAMINATION, OCTOBER/NOVEMBER 2015.

FIRST SEMESTER

Computer Science

Paper II — COMPUTER ORGANISATION

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 is distributed computing?

2. What is a subroutine?

3. What is mapping in micro programmed control?

4. What is an I/O interface? What is its Use?

5. Write a short note on virtual memory.

6. How negative numbers are represented? Example.

7. What is a pipeline? What is its use?

8. Differentiate SRAM and DRAM.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. (a) Explain the instruction formats of a computer.

(b) What is an instruction cycle? Explain with the help of a flow chart.

Or

10. Explain with a neat diagram the Address sequencing in Micro programmed control unit.

11. (a) Explain the following

(i) Programmed I/O

(ii) Memory-mapped I/O.

(b) Explain the different types of interrupts.

Or

12. What is DMA? Explain the DMA mode of data transfer.

13. Discuss the design of fast adder.

Or

14. Explain the division of floating point numbers.

15. What is synchronous data transfer? Explain.

Or

16. Explain the influence of data dependency in pipelining.

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