

MAY 2013

P/ID 16152/
PITSB

Time : Three hours

Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. Describe data representation by complements form and state the advantages.
2. How address sequencing is done?
3. What is vector processing? Illustrate.
4. How full subtractor is realized and explain?
5. Where does the priority interrupt get used? Explain.
6. Explain the cache memory and its place in memory hierarchy.
7. Discuss the consequences of inter processor arbitration.
8. Explain the addressing modes in detail.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Explain, with relevant examples about register transfer language and the micro operations.
10. Explain various instruction formats and illustrate with relevant examples.
11. With a suitable algorithm, describe the multiplication of three floating point numbers.
12. Describe the concept of DMA and cycle stealing.
13. What are the components present in memory management hardware? Describe its working.
14. Write the sequence of designing a control unit and explain.
15. Write short notes on
 - (a) RISC and pipeline
 - (b) Serial communication.
16. Discuss about stack organisation with neat diagram.

17. Write down the overview of Input/Output organisation.
 18. Write a brief note on
 - (a) Auxiliary memory
 - (b) Virtual memory.
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