DECEMBER 2015

P/ID 16101/ KAA/PITA

Time : Three hours Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) What is for different instruction formats used? Why?

Or

(b) Explain data manipulation instructions with examples.

2. (a) State the advantages of pipelining architecture, compared to conventional architecture.

Or

(b) What is RISC? When and where this is preferred?

3. (a) How fast adder performs in computer arithmetic? Illustrate with examples.

Or

(b) Describe multiplication algorithm, with examples.

4. (a) What are the input and output devices normally interfaced with computer? How are they getting connected?

Or

(b) How serial communication principles are used in getting the data from peripheral devices to CPU?

5. (a) What is an associative memory? Describe match logic.

Or

(b) How various memory devices are organized? Illustrate.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. What is direct and indirect addressing mode? Explain them, with examples.

7. Explain various registers and their organization. How the registers are used in arithmetic and processing?

8. What is microprogrammed control? Explain control unit functions and their implementation.

9. Describe vector processing, with 'illustration and application'.

10. Explain multiplication algorithm, with relevant examples.

11. Describe various data transfer schemes, with illustration.

12. What is memory hierarchy? Illustrate the comparison of various memory devicees?

13. Write short notes on

    (a) Inter connection structures

    (b) Floating point operations

    (c) Interrupt handling.
