

OCTOBER 2012

P/ID 17412/RBN

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) Explain the concept of register transfer.

Or

(b) Explain the three-state bus transfer in memory.

2. (a) Explain the general register organizations.

Or

(b) Explain any five typical program control instruction with their functionality.

3. (a) Write short notes on array multiplier.

Or

(b) Explain BCD adder.

4. (a) Write short notes on asynchronous serial transfer.

Or

- (b) Discuss on serial communication.

5. (a) Discuss on main memory.

Or

- (b) Describe Interprocess communication and synchronization.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. How are various data types represented in binary-coded form? Explain.
7. Explain the shift micro operation.
8. Explain the different data transfer and manipulation instructions with examples.
9. Explain Booth's multiplication algorithm with the flowchart.

10. Explain the following :
 - (a) Daisy-chaining priority.
 - (b) Parallel priority interrupt.
 11. Explain direct memory access.
 12. Explain the concept of virtual memory.
 13. Write a detailed note on cache coherence.
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