

MAY 2012

**P/ID 17462/
RCM/PCAN**

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

All questions carry equal marks.

1. (a) Explain the data transfer instructions with examples.

Or

- (b) Write note on instruction formats.

2. (a) Explain about arithmetic pipeline.

Or

- (b) Write short notes on RISC pipeline.

3. (a) Draw the flowchart for binary division and explain.

Or

- (b) Draw the flowchart for floating point addition and explain.

4. (a) Compare isolated I/O with memory-mapped I/O.

Or

- (b) Discuss on different modes of I/O transfer.

5. (a) Explain about Auxiliary memory.

Or

(b) Describe about Interprocessor Arbitration.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

All questions carry equal marks.

6. Explain the general register organization with a neat diagram.
7. Describe addressing modes with examples.
8. Discuss about array processors.
9. Explain the algorithm for multiplication with an example. Give the flow chart and hardware implementation for the same.
10. Describe how priorities are assigned to interrupts through hardware and software.
11. Discuss about serial communication between I/O processor.
12. Describe the organization of cache memory.
13. Explain in detail about virtual memory.