

OCTOBER 2013

**P/ID 16101/CAA/
PITA**

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) List out the various general purpose registers in the central processing unit and discuss.

Or

- (b) Write short notes on program control.

2. (a) Mention the characteristics of a pipeline processing. State the types.

Or

- (b) Write few arithmetic instructions and explain the process of its execution in pipeline process.

3. (a) Write the algorithm for non-restoring division.

Or

- (b) In floating point numbers when do you say that an underflow or overflow has occurred?

4. (a) Write the factors to be considered in designing an input and output sub system.

Or

- (b) Describe the basic concepts of an I/O processor.

5. (a) Draw the diagram for memory hierarchy and explain each.

Or

- (b) What do you mean by memory management unit? Explain its functions.

PART B — (5 × 10 = 50 Marks)

Answer any FIVE questions.

6. List out the various addressing modes employed in computer architecture. Explain each with example.
7. Explain in detail about array processors in pipelining.
8. Describe the multiplication speedup technique with an example.
9. Explain in detail about peripheral devices in I/O organization.
10. Write short notes on Inter-connection structures in memory management organization.
11. What is memory interleaving? Explain with neat diagram.
12. Explain in detail about the interrupts in Input and Output organization.
13. Discuss the virtual memory management techniques in detail.