

MAY 2016

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

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) How stack is used for computation and storage?

Or

- (b) Describe data transfer schemes. Illustrate any two.

2. (a) What is vector processing? Illustrate the architecture.

Or

- (b) What is an arithmetic pipeline? Give an example.

3. (a) Give a summary on computer arithmetic handling schemes.

Or

- (b) Explain, with procedure, how decimal arithmetic multiplication is performed.

4. (a) What are peripheral devices? Why attention is paid in interconnecting them with processor?

Or

- (b) In serial communication, how the speed of transfer of data can be handled?

5. (a) Compare various memory devices, in memory hierarchy.

Or

- (b) Illustrate the match logic of associative cache memory.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. What is an instruction? Enumerate different instruction formats. Illustrate any two types.
7. Explain hardwired and microprogrammed program control unit compare their implementation issues.
8. Describe how instruction pipelining scheme works? Illustrate with example.

9. How multiplication and division operations are performed for floating point numbers?
 10. Explain the process of handling interrupts. How the priorities are given weightages?
 11. Describe the functions of I/O processor.
 12. Explain the concept of virtual memory. When and where this is prepared?
 13. Write short notes on :
 - (a) Interconnection Structures
 - (b) DMA.
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