

Roll No .....

**CS/IT - 402****B.E. IV Semester**

Examination, June 2016

**Computer System Organization****Time : Three Hours****Maximum Marks : 70**

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
 ii) All parts of each question are to be attempted at one place.  
 iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.  
 iv) Except numericals, Derivation, Design and Drawing etc.

**Unit - I**

1. a) Why address and data bus are multiplexed?  
 b) What is auxiliary memory?  
 c) Explain the features of Non-Neumann Model.  
 d) What is instruction format? Explain various instruction format.

OR

Explain different micro operation with example.

**Unit - II**

2. a) Define Micro-Program.  
 b) What is nano programmed control unit?  
 c) Differentiate between hardware control unit and micro programmed control unit.  
 d) Hardware control unit is faster than micro program control unit. Justify this statement.

OR

How is multiplication of floating point number achieved?  
 Explain using flow chart.

**Unit - III**

3. a) What is DMA?  
 b) What is the role of a priority interrupt?  
 c) What do you mean by serial transmission and parallel transmission of data?  
 d) Compare and contrast DMA and I/O processors.

OR

Explain daisy chaining priority for data transfer.

**Unit - IV**

4. a) What is memory hierarchy?  
 b) What are the characteristics of cache memory?  
 c) Write about the hardware for memory management.  
 d) Explain how associative memory page table is used for effective storage utilization.

OR

With the help of diagram explain how cache is used in cache organization. Explain mapping techniques.

**Unit - V**

5. a) What is Flynn's Taxonomy?  
 b) What is inter-connection network?  
 c) Define multiprocessor. Explain clearly the characteristics of multiprocessors.  
 d) Differentiate between arithmetic and instruction pipeline.

OR

Give definition of vector processing. And enlist its application.

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