PSCELET07 - Paper-III : Computer Organization and Interfacing

P. Pages : 2

Time : Three Hours

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Max. Marks : 80

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Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat and label diagrams wherever necessary.

Either

1. a) Explain functional view of computer. **8**

b) Explain cache memory structure. **8**

OR

c) Describe the structure of PCI bus. **8**

d) Explain DMA module in computer organization. **8**

Either

2. a) Explain concept of pipelining. **8**

b) Discuss the architecture of Reduced Instruction Set Computer (RISC). **8**

OR

c) Explain super-pipelined organization. State its advantages. **8**

d) Compare RISC and CISC. **8**

Either

3. a) Write short notes on: **8**

i) GPIB

ii) UART

b) Draw and explain functional block diagram of PC bus based data acquisition system. **8**

OR

c) Explain USB interfacing with computer. **8**

d) Explain the structure of GPIB (IEEE -488) interface. **8**

Either

4. a) Explain ISA bus architecture. **8**

   b) Explain interrupt handling using DMA. Explain the organization of a Centronics printer port (CPP) **8**

<div align="center">**OR**</div>

   c) What is USB? List special features and describe brief the USB port. **8**

   d) What is BIOS? Explain the working of BIOS in computer system. **8**

5. a) Explain FireWire and InfiniBand in brief. **4**

   b) State the silent features of super-pipelined architecture. **4**

   c) Explain networked data acquisition. **4**

   d) State the features of PCI bus. **4**

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