

M.Sc.F.Y. (Electronics)(with Credits)-Regular-Semester 2012 (Old / CBCS Pattern) Sem II
ELE203 / PSCELET07-Core-7 - Paper-III :
Computer Organisation and Interfacing

P. Pages : 2

Time : Three Hours



GUG/S/18/5737

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat and labelled diagram wherever necessary.

1. Either

- a) Compare features of Pentium with power PC. **8**
- b) Describe the structure of PCI bus. **8**

OR

- c) Explain with a suitable diagram cache/main memory structures and explain cache read operation. **8**
- d) Discuss the structure of DMA module in computer organization. **8**

2. Either

- a) Discuss the architecture of Reduced Instruction Set Computer (RISC). **8**
- b) Give the comparison between RISC and CISC. **8**

OR

- c) Explain superscalar technology and super pipelined organization. **8**
- d) Explain the concept of pipelining. **8**

3. Either

- a) Draw and explain the functional block diagram of PC based data acquisition system. **8**
- b) Explain the structure of GPIB Interface. **8**

OR

- c) What is USB? Explain the USB based interface system protocol. **8**
- d) Explain importance of networking in data acquisition system. List different network topologies used in LANs. **8**

4. Either

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|----|---|----------|
| a) | Describe the techniques of interfacing the standard parallel port. | 8 |
| b) | Describe the various signals of 8 bit ISA bus. State its limitations. | 8 |

OR

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|-----------|---|---|----------|
| c) | Explain the salient features of the PCI bus. | 8 | |
| d) | What is USB? List the special features of it. | 8 | |
| 5. | a) | Explain firewire and InfiniBand in brief. | 4 |
| | b) | Explain the organization of pipelining. | 4 |
| | c) | Write a note on GPIB (IEEE-488) | 4 |
| | d) | Explain the interfacing of parallel port. | 4 |
