Code No: RR220501 **RR** **Set No. 2**

**II B.Tech II Semester Examinations,December 2010**
**COMPUTER ORGANIZATION**
**Common to Information Technology, Electronics And Computer Engineering, Computer Science And Engineering, Computer Science And Systems Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. (a) Differentiate between high-level and low-level parallelism
   (b) Discuss about Flynn's classification of parallel processor systems.
   (c) Explain different MIMD interconnection topologies. [5+6+5]
2. (a) What is micro instruction? Give an interpretation of it.
   (b) How is microprogramming concept is used to impletment the control unit?
   (c) Differentiate between high level and micro programming languages. [4+8+4]
3. (a) What is the transfer rate for 9-track magnetic tape unit whose tape speed is 120 inches per second and whose tape density is 1600 linear bits per inch?
   (b) Elaborate about erasable optical disk.
   (c) Differentiate between sequential-access and direct-access devices. [8+4+4]
4. (a) List and describe different Motorola 88000 bit-field instructions.
   (b) Discuss about register management in Motorola 88000. [8+8]
5. (a) Explain the sub cycles of an instruction cycle.
   (b) Explain how indirect cycle is performed.
   (c) List four registers essential to instruction execution. [6+6+4]
6. (a) Discuss about PCI bus arbitration
   (b) List the merits and demerits of centralized and distributed bus arbitrations. [8+8]
7. (a) Explain about booth coding
   (b) Find the booth coded numbers of the following binary numbers
      i. 01101111101
      ii. 000111110110 [8+8]
8. (a) How would you build 4M×32 memory unit using 1M×4DRAM chips?
   (b) Describe the memory hierarchy. [12+4]

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Code No: RR220501 **RR** **Set No. 4**

**II B.Tech II Semester Examinations,December 2010**
**COMPUTER ORGANIZATION**
**Common to Information Technology, Electronics And Computer Engineering, Computer Science And Engineering, Computer Science And Systems Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. (a) What is micro instruction? Give an interpretation of it.
   (b) How is microprogramming concept is used to impletment the control unit?
   (c) Differentiate between high level and micro programming languages. [4+8+4]
2. (a) List and describe different Motorola 88000 bit-field instructions.
   (b) Discuss about register management in Motorola 88000. [8+8]
3. (a) How would you build 4M×32 memory unit using 1M×4DRAM chips?
   (b) Describe the memory hierarchy. [12+4]
4. (a) Explain the sub cycles of an instruction cycle.
   (b) Explain how indirect cycle is performed.
   (c) List four registers essential to instruction execution. [6+6+4]
5. (a) Discuss about PCI bus arbitration
   (b) List the merits and demerits of centralized and distributed bus arbitrations. [8+8]
6. (a) What is the transfer rate for 9-track magnetic tape unit whose tape speed is 120 inches per second and whose tape density is 1600 linear bits per inch?
   (b) Elaborate about erasable optical disk.
   (c) Differentiate between sequential-access and direct-access devices. [8+4+4]
7. (a) Explain about booth coding
   (b) Find the booth coded numbers of the following binary numbers
      i. 01101111101
      ii. 000111110110 [8+8]
8. (a) Differentiate between high-level and low-level parallelism
   (b) Discuss about Flynn's classification of parallel processor systems.
   (c) Explain different MIMD interconnection topologies. [5+6+5]

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Code No: RR220501 **RR** **Set No. 1**

**II B.Tech II Semester Examinations,December 2010**
**COMPUTER ORGANIZATION**
**Common to Information Technology, Electronics And Computer Engineering, Computer Science And Engineering, Computer Science And Systems Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. (a) What is micro instruction? Give an interpretation of it.
   (b) How is microprogramming concept is used to impletment the control unit?
   (c) Differentiate between high level and micro programming languages. [4+8+4]
2. (a) Discuss about PCI bus arbitration
   (b) List the merits and demerits of centralized and distributed bus arbitrations. [8+8]
3. (a) Explain the sub cycles of an instruction cycle.
   (b) Explain how indirect cycle is performed.
   (c) List four registers essential to instruction execution. [6+6+4]
4. (a) What is the transfer rate for 9-track magnetic tape unit whose tape speed is 120 inches per second and whose tape density is 1600 linear bits per inch?
   (b) Elaborate about erasable optical disk.
   (c) Differentiate between sequential-access and direct-access devices. [8+4+4]
5. (a) How would you build 4M×32 memory unit using 1M×4DRAM chips?
   (b) Describe the memory hierarchy. [12+4]
6. (a) Differentiate between high-level and low-level parallelism
   (b) Discuss about Flynn's classification of parallel processor systems.
   (c) Explain different MIMD interconnection topologies. [5+6+5]
7. (a) List and describe different Motorola 88000 bit-field instructions.
   (b) Discuss about register management in Motorola 88000. [8+8]
8. (a) Explain about booth coding
   (b) Find the booth coded numbers of the following binary numbers
      i. 01101111101
      ii. 000111110110 [8+8]

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Code No: RR220501 **RR** **Set No. 3**

**II B.Tech II Semester Examinations,December 2010**
**COMPUTER ORGANIZATION**
**Common to Information Technology, Electronics And Computer Engineering, Computer Science And Engineering, Computer Science And Systems Engineering**

**Time: 3 hours** **Max Marks: 80**

**Answer any FIVE Questions**
**All Questions carry equal marks**

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1. (a) What is the transfer rate for 9-track magnetic tape unit whose tape speed is 120 inches per second and whose tape density is 1600 linear bits per inch?
   (b) Elaborate about erasable optical disk.
   (c) Differentiate between sequential-access and direct-access devices. [8+4+4]
2. (a) How would you build 4M×32 memory unit using 1M×4DRAM chips?
   (b) Describe the memory hierarchy. [12+4]
3. (a) Explain about booth coding
   (b) Find the booth coded numbers of the following binary numbers
      i. 01101111101
      ii. 000111110110 [8+8]
4. (a) Explain the sub cycles of an instruction cycle.
   (b) Explain how indirect cycle is performed.
   (c) List four registers essential to instruction execution. [6+6+4]
5. (a) Discuss about PCI bus arbitration
   (b) List the merits and demerits of centralized and distributed bus arbitrations. [8+8]
6. (a) What is micro instruction? Give an interpretation of it.
   (b) How is microprogramming concept is used to impletment the control unit?
   (c) Differentiate between high level and micro programming languages. [4+8+4]
7. (a) List and describe different Motorola 88000 bit-field instructions.
   (b) Discuss about register management in Motorola 88000. [8+8]
8. (a) Differentiate between high-level and low-level parallelism
   (b) Discuss about Flynn's classification of parallel processor systems.
   (c) Explain different MIMD interconnection topologies. [5+6+5]

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