

FACULTY OF INFORMATICS

B.E. II/IV Year (IT) II Semester (Supplementary) Examination, December 2008

COMPUTER ORGANIZATION & MICROPROCESSOR

Time : 3 Hours]

[Max. Marks : 75

Answer **all** questions of Part A.

Answer any **five** questions from Part B.

**Part A – (Marks : 25)**

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|---|---|
| 1. Explain single Bus structure.                                    | 3 |
| 2. Explain how a keyboard is connected to a processor.              | 3 |
| 3. What is meant by hit rate and miss penalty?                      | 2 |
| 4. Write about LRU replacement algorithm.                           | 2 |
| 5. Write the control sequence for unconditional branch instruction. | 3 |
| 6. What is meant by emulation?                                      | 3 |
| 7. Write about flash card and flash drives.                         | 2 |
| 8. Write about packed BCD adjust Instruction.                       | 2 |
| 9. What is a macro?   | 2 |
| 10. Explain how operating system handles I/O.                       | 3 |

**Part B – (Marks : 50)**

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|--|----|
| 11. Explain DMA and different arbitration schemes.                                     | 10 |
| 12. Explain in detail about synchronous and asynchronous DRAMS.                        | 10 |
| 13. Explain in detail about Virtual memory address translation.                        | 10 |
| 14. Discuss the process involved in executing an instruction by a processor.           | 10 |
| 15. With necessary diagrams explain the 8086 internal configuration.                   | 10 |
| 16. Discuss the stack action during a typical sequence of procedure calls and returns. | 10 |
| 17. Explain about the following :  |    |
| (a) Booth's algorithm  | 5  |
| (b) Instruction formats of 8086.   | 5  |