



Reg. No. :

Name :

**Sixth Semester B.Tech. Degree Examination, May 2013
(2008 Scheme)**

Branch : Electrical and Electronics

08.602 : MICROPROCESSORS AND APPLICATIONS

Time : 3 Hours

Max. Marks : 100

Instruction : Answer **all** questions from Part – **A** and **one** question from **each** Module of Part **B**.

PART – A

1. What is meant by multiplexing of AD bus ?
2. Explain the following instructions :
 - a) XCHG
 - b) STAX D
 - c) LHLD 7050
 - d) CMP D
3. List the interrupt related instructions used in 8085 .
4. Explain hand shaking mode of data transfer.
5. Explain BSR mode of operation of 8255.
6. Draw the timing diagram of memory read machine cycle with one wait state.
7. Explain the method of 20 bit physical address generation from 16 bit EA for 8086 microprocessor.
8. List the different registers used in 8086 microprocessor.
9. Differentiate between vectored and non-vectored interrupts.
10. Write an ALP for 8085 microprocessor to add two 16-bit numbers.

(10x4=40 Marks)

P.T.O.

**PART – B****Module – I**

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| 11. a) | Explain the different addressing modes used in 8085 with examples. | 8 |
| b) | Draw the pin out diagram of Intel 8085 and explain each pin. | 12 |
| 12. a) | Explain the terms machine cycle, T-states and instruction cycle. | 6 |
| b) | Draw the timing diagram of instruction CMP C. | 8 |
| c) | Write an ALP to multiply two 8-bit numbers by repeated addition. | 6 |

Module – II

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| 13. a) | Explain the different data transfer schemes used in 8085. | 12 |
| b) | Draw the interfacing diagram of two 7-segment display units with 8085 microprocessor. | 8 |
| 14. a) | Show the interfacing of 8 K byte RAM with 8085 microprocessor using 2k × 8 bit RAM chips, if the starting address is 2000 H. | 10 |
| b) | Draw the internal block diagram fo 8255 PPI and explain each block in detail. | 10 |

Module – III

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| 15. a) | Explain the different addressing modes used in Intel 8086 microprocessor. | 10 |
| b) | Differentiate between minimum and maximum modes of operation in 8086 microprocessor. | 10 |
| 16. a) | Draw the block diagram of 8086 and explain each block in detail. | 12 |
| b) | Explain different flags used in 8086 microprocessor. | 8 |
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