

02/05/2016

Total No of Pages: 3

6E3086

Roll No. _____

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B.Tech. VI-Sem. (Back) Exam., April/May-2016
Electrical & Electronics Engineering
6EX2 (O) Microprocessor and Microcontroller
Common with EC

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks (Back): 24

Instructions to Candidates:-

Attempt any **five questions**, selecting **one question** from each unit. All Questions carry **equal** marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly.

Units of quantities used/ calculated must be stated clearly.

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. NIL _____

2. NIL _____

UNIT-I

Q.1 (a) Draw the block diagram of 8085 microprocessor. What is the requirement of address bus? [10]

(b) Why AD₀- AD₇ lines are multiplexed. [6]

OR

Q.1 (a) Write short note on Input/ Output devices. What is the use of ALE signal? [8]

(b) Explain the working of Latches & memories with example. [8]

[2000]

UNIT-II

- Q.2 (a) Discuss Addressing mode with suitable example. [8]
(b) Write a program to subtract two 8 bit numbers. [8]

OR

- Q.2 (a) Discuss RISC and CISC architecture? [8]
(b) Explain the contents of accumulator to run SIM instruction. [8]

UNIT-III

- Q.3 (a) Compare instruction JMP 2000H & PCHL. [6]
(b) What do you mean by programming & debugging? [10]

OR

- Q.3 Explain the formats of 8 bit & 16 bit instructions. Give suitable example in support of your answer. [16]

UNIT-IV

- Q.4 (a) Explain the bit set/reset mode of 8255. [8]
(b) What are the performance parameters of DAC? [8]

OR

- Q.4 (a) Generate triangular wave using DAC 0808. [8]
(b) What is the difference between A/D and D/A converters? [8]

UNIT-V

- Q.5 (a) Give pin details and interfacing of 8051 microcontroller.
(b) Discuss general features of 8051.

[10]

[6]

OR

Q.5 Write short note on -

[8×2=16]

- (a) Timers & Interrupts.
(b) Memory & Instruction.
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