

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 $AD_0 - AD_7$ 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]

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.

[10]

(b) Discuss general features of 8051.

[6]

OR

Q.5 Write short note on -

[8×2=16]

(a) Timers & Interrupts.

(b) Memory & Instruction.