

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]

May-25-0783

ECEPC-412 (Microcontrollers)

B.Tech. 4th (NEP)

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Question paper consists of five sections. Attempt one question each from section A, B, C & D. Section-E is compulsory.

SECTION - A
(Attempt any One)

1. Explain the operations of the interrupts structure of the 8085, with the help of a circuit diagram. (12)
2. Explain direct addressing mode of 8085 with an example. (12)

SECTION - B
(Attempt any One)

3. Explain, in detail, 8255 programmable peripheral interface. (12)
4. Explain with circuit diagram interfacing of 2KX8 EPROM. (12)

SECTION - C
(Attempt any One)

5. With neat and clean pin diagram and details, explain Basic 8051 Architecture. (12)
6. Explain the following in detail and differentiate:
a. CISC architecture b. RISC architecture (12)

2

ECEPC-412

SECTION - D
(Attempt any One)

7. Write a program to add two 8-bit numbers using 8051. (12)
8. Briefly explain about flash memory in PIC with necessary diagram. (12)

SECTION - E
(Compulsory Questions)

9. i. What is microcontroller?
ii. What is a special function register?
iii. What are the functions of RAM and ROM chips in a microprocessor-based system?
iv. What are the ARM Processor modes?
v. Explain the stack operation in the 8051.
vi. Explain Pipelining with examples. (6×2=12)