DEC-25-0046

ECEPC-412 (Microcontrollers (CSE AI and ML, EE, EEE, ECE,CSE,AI and DS))

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: Attempt five questions in all, select one question each from section A, B, C, D. Section E (Question-9) is compulsory.

SECTION-A (Attempt any One)

1. Sketch and explain the various pins of the 8085. (12)

2. Explain in detail evolution of Microprocessors. (12)

SECTION-B (Attempt any One)

3. Draw the block diagram of 8259 and explain how it can be used for increasing the interrupt capabilities of the 8085. (12)

4. Write the sequence of operation carried out in DMA in detail. Give examples of I/O devices that can be interfaced with DMA. (12)

SECTION-C (Attempt any One)

5. Differentiate between Microprocessors and Microcontroller in detail. (12)

6. Explain in detail memory organization in 8051. (12)

SECTION-D (Attempt any One)

7. What are the features of the ARM instruction? (12)

8. Illustrate 8051 assembly programming in detail. (12)

SECTION-E (Compulsory Questions)

9. i. What is the function of microprocessor in a system?

ii. What is meant by priority of interrupts?

iii. What are the functions of RAM and ROM chips in a microprocessor-based system?

iv. What are the three categories of ARM instructions?

v. What is full form of RISC and CISC?

vi. Briefly explain LED Interface. (6×2=12)