

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

B.Tech. (Sem. - 5th)

MICROPROCESSORS AND ITS APPLICATIONS

SUBJECT CODE : EC - 307

Paper ID : [A0314]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1) (10 × 2 = 20)

- a) What are the advantages of an assembly language in comparison with high level language.
- b) If the 8085 adds fatch the machine code located at the memory location 205FH. Specify the content of programme counter.
- c) Explain why are latched is used for output port, but a tri state buffer can be used for an input port.
- d) Specify the contents of the registers and the flag status as the following instruction are executed.

A B C D S Z C

MVIA,00H

MVI B,F8H

MOV C,A

MOV D,B

HLT.

- e) Explain how many times the following loop will be executed.

LXI B,0007H

LOOP:DCX B

JNZ LOOP

- f) Calculate the count to obtain a 100 μ s loop delay and express the value in Hex.
- g) Explain the stack with PUSH and POP instruction.
- h) What is the difference between 8085 μ P and 8086 μ P.
- i) What are the assembler directive?
- j) Distinguish between minimum mode system and maximum mode system of 8086.

Section - B

(4 × 5 = 20)

- Q2) Explain how handshaking is done. Explain any three handshaking signal is used in 8086.
- Q3) Explain the control and status signal of 8085.
- Q4) Explain the memory mapped I/O mode used in 8085.
- Q5) Write a programme to convert a packed BCD to binary equivalent.
- Q6) Explain the addressing mode of 8085 with suitable example for each.

Section - C

(2 × 10 = 20)

- Q7) Describe with a diagram the architecture of the execution unit of 8086.
- Q8) Explain in detail about programmable interrupt controller.
- Q9) How will you interface a stepper motor with 8085? Explain the interfacing circuit and draw the flow chart.

