S.No. : 188 BEC 3404

No. of Printed Pages : 04

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 33317 Roll No.

B. Tech. Examination 2021-22

(Even Semester)

MICROPROCESSOR

Time : Three Hours] *[Maximum Marks : 60*

Note :– Attempt all questions.

SECTION–A

1. Attempt all parts of the following : $8 \times 1 = 8$

   (a) Name the various flag bits available in 8085 microprocessor.

   (b) List various instructions that can be used in clear accumulator in 8085.

   (c) Define stack and write down the name of stack related instructions.

   (d) What are the various programmed data transfer methods?

[P. T. O.

(e) What is memory mapped I/O?

(f) Write the two features of 8255A.

(g) What are the modes of operation supported by 8255.

(h) What are the different types of instructions in 8086 microprocessor?

SECTION – B

2. Attempt any two parts of the following : $6 \times 2 = 12$

(a) Draw the functional block diagram of 8085 microprocessor and explain its each block.

(b) Explain the function of following pins with reference to 8085 microprocessor (i) INTR (ii) READY (iii) SID.

(c) Difference between minimum and maximum mode operation of 8086 microprocessor.

(d) Draw and explain the functional block diagram of IC8254.

SECTION – C

Note:- Attempt all questions. Attempt any two Parts from each questions. $8 \times 5 = 40$

3. (a) What are the various registers of 8085? Discuss their function.

(b) Describe the various data transfer schemes used for data transfer from CPU/memory to I/O..

(c) Give the clock out frequency and state time T.of an 8085 A operating with each of the following frequency crystals : 6.25 MH_3, 6.144 MH_2, 5 MH_2 and 4MH_2.

4. (a) Explain the contents of accumulator to run SIM instruction.

(b) Explain the function perform by the following set of instructions. What will be the content flog register after execution of program

MVIA.07H

RLC

MOV B, A

ORA B

ADD B

(c) Compare instructions SUBA and MVIA, OOH.

5. (a) Generate square wave using DAC 0808.

(b) Draw and explain the functional block diagram of 8255.

(c) Write down the features of 8279.

6. (a) What is the need of demultiplexing of address and data lines of 8086 microprocessor? How the microprocessor bus is demultiplexing in a system bus in 8086.

(b) Explain the utility of stack in programming. How it can be initialize in 8086.

(c) Explain the function of following pins of 8086 microprocessor.

(i) TEST

(ii) RESET

⌘⌘⌘