S.No. : 141 BCS 3502

No. of Printed Pages : 04

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

PAPER ID : 33221 Roll No. | | | | | | | | | | |

B. Tech. Examination 2022-23

(Odd Semester)

MICROPROCESSOR AND INTERFACING

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

Note :– Attempt all questions.

SECTION – A

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

(a) Describe counting and indexing in MP.

(b) What is CPU?

(c) Explain about arithmetic operation.

(d) What do you mean by program looping?

(e) How to write a assembly language program?

(f) Explain about timing delay.

[P. T. O.

(g) What is interrupt?

(h) What is M. P.?

SECTION – B

2. Attempt any two parts of the following : 2×6=12

(a) Write short notes on following instructions of 8085 with suitable examples :

(i) XCHG

(ii) DAD

(iii) ADD

(iv) SUB

(b) Draw the block diagram of 8255 and explain how it can used for peripheral interface?

(c) Describe the difference between fetch cycle and memory read cycle.

(d) Give basic characteristics of microprocessor.

SECTION – C

Note :– Attempt all questions. Attempt any two parts from each question. 5×8=40

3. (a) What are various addressing modes of 8086? Explain with example.

(b) Why semiconductor memories are used for primary instead of magnetic memory?

(c) Explain DMA data transfer scheme.

4. (a) Define T-state, machine cycle and instruction cycle.

(b) Explain the architecture of 8085 M. P.

(c) Write the function of following pins of 8085 S_0, S_1 and IO.

5. (a) Explain memory segmentation in 8086. What are its advantages?

(b) Explain about memory hierarchy design technology.

(c) Give detail classification of data transfer schemes.

6. (a) Discuss the different modes of operation in 8254.

(b) Explain the different functional block of 8259.

(c) Draw and explain the internal architecture of 8086 microprocessor.

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