

- (b) Data transfer instructions
- (c) Stack Pointer
- (d) Program counter
- (e) What is Interfacing ?
- (f) Handshaking signals in Asynchronous data transfer schemes
- (g) Functions of BIU in Intel 8086 architecture
- (h) Memory segmentation in 8086
- (i) Edge triggered interrupts
- (j) Floating point coprocessor.

Roll No.

Total Pages : 04

Sep-21-00059

B. Tech. EXAMINATION, 2021

Semester IV (CBCS)

MICROPROCESSORS AND PERIPHERALS

EC-402

(ECE, CSE, IT)

Time : 2 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within 20 pages only (A4 size sheets/assignment sheets), no extra sheet allowed. The candidates should write only on one side of the page and the back side of the page should remain blank. Only blue ball pen is admissible.

Note : Attempt *Four* questions in all, selecting *one* question from any of the Sections A, B, C and D.
Q. No. 9 is compulsory.

Section A

1. (a) Explain the Evolution of different microprocessors. **7.5**

- (b) Discuss various types of addressing modes of 8085 with examples. 7.5
2. (a) Explain, what operations is performed when the following instructions are executed : 7.5
- (i) DAA
 - (ii) CMP r
 - (iii) RAR
 - (iv) PUSH rp
 - (v) DAD rp.
- (b) Draw and explain the pin diagram of Intel 8085. 7.5

Section B

3. (a) Write a program in assembly language (8085) to find 1's Complement of a 16-bit number. 7.5
- (b) Differentiate between SRAM and DRAM. 7.5
4. (a) What are the various interrupt lines of 8085 ? Discuss their main features. 7.5
- (b) Discuss absolute and partial decoding memory interfacing techniques in brief. 7.5

Section C

5. (a) What is the difference between I/O mapped and memory mapped I/O ? 7.5
- (b) Write a note on DMA controllers and their interfacing with CPU. 7.5
6. (a) Discuss the programmable communication interface 8251 and its application. 7.5
- (b) What is SID and SOD ? Explain its use in Serial data communication. 7.5

Section D

7. (a) What are the main features of Intel 8086 ? 7.5
- (b) Explain Minimum mode configuration in 8086 microprocessor. 7.5
8. (a) What are the different operating modes of 8255 ? 7.5
- (b) What are the different data transfer schemes ? Explain. 7.5

(Compulsory Question)

9. Write short notes on the following : **1.5×10=15**
- (a) Difference between Microcontroller and Microprocessor.