

B.TECH SEM – IV (2007 COURSE) (COMPUTER ENGG.) :
SUMMER - 2018
SUBJECT: TECHNIQUES OF MICROPROCESSOR PROGRAMMING

Day : **Tuesday** **S-2018-2614**
Date : **12/06/2018**

Time : **10.00 AM TO 01.00 PM**
Max. Marks: 80

N. B. :

- 1) **Q.No.1 and Q.No.5 are COMPULSARY.** Out of remaining attempt **ANY TWO** questions from each sections.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to the both sections should be written in **SEPARATE** answer books.
- 4) Assume suitable data, if necessary.
- 5) Draw neat and labeled diagram **WHEREVER** necessary.

SECTION - I

- Q.1**
- a) Define maximum and minimum mode of 8086. (05)
 - b) Distinguish between FAR and NEAR procedure. (05)
 - c) Classify different types of 8086 interrupts. (04)
- Q.2**
- a) Describe Architecture of 8086 with neat block diagram. (07)
 - b) List addressing modes of 8086 and explain with suitable examples. (06)
- Q.3**
- a) Explain the following 8086 instructions with example. (07)
i) SBB ii) CMC iii) JLE iv) LOOPNE
 - b) Define Macro and Procedure. Justify where Macro is more suitable than procedure. (06)
- Q.4**
- a) Explain the working of 8259 PIC with neat block diagram. (07)
 - b) Describe execution of Interrupt Service Routine with flow chart. (06)

SECTION – II

- Q.5**
- a) Differentiate between Synchronous and Asynchronous communication. (05)
 - b) Describe the functions of Queue Status and LOCK signals of 8086. (05)
 - c) What is TSR? List the types of TSR. (04)
- Q.6**
- a) Classify and explain control word formats of 8255 PPI. (07)
 - b) Describe mode 2 and mode 3 of 8253 Timer with neat timing diagram. (06)
- Q.7**
- a) Distinguish between closely coupled and loosely coupled configurations. (07)
 - b) Explain the communication between 8089 IOP and CPU. (06)
- Q.8**
- a) What is PSP? Draw and explain structure of PSP. (07)
 - b) What are the different components of MS-DOS? Draw DOS memory map. (06)

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