

**B.Tech Sem – IV (2007 Course) (Computer Engg.) : WINTER - 2018**  
**SUBJECT: TECHNIQUES OF MICROPROCESSOR PROGRAMMING**

Day : Saturday  
Date : 17/11/2018

**W-2018-2752**

Time : 02.30 PM TO 05.30 PM  
Max. Marks: 80

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**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.
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**SECTION - I**

- Q.1** a) Explain the functions of following signals of 8086: (05)  
i)  $DT/\overline{R}$  ii)  $MN/\overline{MX}$  iii) AEN
- b) What is difference between Arithmetic and Logical shift? (05)
- c) Explain maskable and non maskable interrupts. (04)
- Q.2** a) Describe the concept of segmentation in 8086. (07)
- b) List addressing modes of 8086 and explain with suitable examples. (06)
- Q.3** a) List and explain Arithmetic instructions of 8086. (07)
- b) Define Macro and Procedure. Justify where Macro is suitable than procedure. (06)
- Q.4** a) Explain the working of 8259 PIC with neat block diagram. (07)
- b) Describe the structure of Interrupt Vector Table. (06)

**SECTION – II**

- Q.5** a) Explain RS-232 communication standard. (05)
- b) Describe the functions of BUSY and RQ/GT signals of 8086. (05)
- c) Distinguish between .exe and .com file structure. (04)
- Q.6** a) Classify and explain control word formats of 8255 PPI. (07)
- b) Draw and explain Receiver and Transmitter sections of 8251 UART. (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 are the types of TSR? Describe the structure of TSR. (07)
- b) What are the different components of MS-DOS? Draw DOS memory map. (06)

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