

B.Tech Sem – IV (2007 Course) (Computer Engg.) : SUMMER - 2019
SUBJECT: TECHNIQUES OF MICROPROCESSOR PROGRAMMING

Day : Saturday
Date : 01/06/2019

S-2019-3017

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 section.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Answer to both the sections should be written in **SAME** Answer book.
 - 4) Assume suitable data, if necessary.
 - 5) Draw neat and labeled diagram **WHEREVER** necessary.
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SECTION - I

- Q.1** a) Describe signals of 8284 clock generator. (05)
- b) What is Effective Address? In how many ways it can be specified in an instruction? (05)
- c) Describe the use of CAS0, CAS1, and CAS2 SIGNALS OF 8259 PIC. (04)
- Q.2** a) Why 8086 memory is divided into even and odd banks. Explain significance of A₀ and BHE. (07)
- b) Describe architecture of 8086 with neat block diagram. (06)
- Q.3** a) Describe string instructions of 80386 with examples. (07)
- b) Describe PUBLIC & EXTERN assembler directives and explain process of linking two different source modules having these directives. (06)
- Q.4** a) Explain command words and control words of 8259. (07)
- b) Describe Type 1, Type 2 and Type 3 interrupts. (06)

SECTION – II

- Q.5** a) What is handshaking? How it is used to interface parallel printer using 8255. (05)
- b) Describe the functions of Queue Status and LOCK signals in multiprocessor configuration. (05)
- c) Differentiate between DOS and BIOS calls with suitable examples. (04)
- Q.6** a) Explain BSR and I/O mode word formats of 8255 PPI. Write BSR control word to set PC₃ bit. (07)
- b) Draw a neat block diagram of 8251 USART and state the functions of signals. (06)
- Q.7** a) Describe communication protocol between 8086 and 8087 NDP. (07)
- b) Distinguish between closely coupled and loosely coupled configurations. (06)
- Q.8** a) State the components of DOS. Explain how MS DOS gets loaded after power on. (07)
- b) Describe POST sequence in detail. (06)

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