

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-2006**IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS****MICROPROCESSORS
(MECHANICAL ENGINEERING)****APRIL/MAY 2006****MARK-3 HOUR
MARK-80****ANSWER ANY FIVE QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.****MARKS [16*5=80]**

1. (a) Explain various interrupt of 8085 Microprocessor and their priorities.

(b) Explain the
 - i. SID
 - ii. SOD
 - iii. So, S1,
 - iv. INTA pins of 8085 Microprocessor
2. (a) Explain the flag register of 8086.

(b) Explain the concept of memory segmentation.

(c) Explain, when Queue is failing to speed up the execution.
3. (a) Write a program to check whether the given string is palindrome or not.

(b) Briefly explain about following instructions.
 - i. ADD
 - ii. NEG
 - iii. AAM
 - iv. DIV
4. (a) What is the necessity of NEAR or FAR attribute in PROC statement?

(b) Give the sequence of instructions that would cause the register SI to be loaded from an externally defined variable COUNT ?

(c) What is the necessity of relocation? Explain the support provided by 8086 for relocation capability?
5. Assume that the symbol table starting at location TABLE consists of 100 entries. Each entry has 80 bytes with the first 8 bytes representing the name field and the remaining 72 bytes representing the information field. Write an instruction sequence to search this table for a given name of 8 characters stored in NAME. If the name is found, copy the associated information into INFO, otherwise, fill INFO with null characters?
6. It is necessary to serve 15 interrupt requests using 8259's. The address map for the 8259's is given from 0100H to 0103H. Show the complete interface with 8086 system bus? These 15 interrupts are to be requested from interrupt type 060H on words, with level triggered mode and auto end of interrupt. Give the initialization sequence for all 8259's.
7. What is the difference between simple I/O, strobed I/O and bi-directional I/O with reference to 8255? Discuss the required control signals and their timing sequence for each mode of operation?
8. (a) Discuss the serial data transmission standards and their specifications?

(b) A terminal is transmitting asynchronous serial data at 2400 bd. What is the bit time? Assuming 7 data bits, a parity bit and 1 stop bit how long does it take to transmit one character?