Exam. Code   : 208603
Subject Code :   4723

M.Sc. (IT) Semester—III

MICROPROCESSOR AND ITS APPLICATIONS

Paper—MIT-305

Time Allowed—3 Hours]   [Maximum Marks—100

Note :—Attempt any **FIVE** questions. All questions carry
equal marks.

1. (a) Discuss the evolution of microprocessors.

    (b) Briefly explain the Internal architecture of 8088
         Microprocessor. Explain the Execution Unit and
         Bus Interface Unit in detail.

2. (a) Describe the difference between the minimum-
         mode 8086 system and maximum-mode 8086
         system.

    (b) Explain the purpose of 6 byte instruction queue
         buffer of 8086.

3. Write a short note on 8255A Programmable Peripheral
    Interface. Explain the block diagram of the 8255A.

4. Write a detailed note on :

    (a) I/O data transfer

    (b) I/O instructions

    (c) Isolated I/O

    (d) Memory mapped I/O.

5. What is ROM ? Explain with a block diagram. Also distinguish among ROM, PROM and EEPROM.

6. Discuss the important features of 8251 USART chip.

7. What is an Interrupt ? Discuss the Non maskable Interrupts. Also discuss the role of Interrupt Vector Table.

8. (a) Discuss the hardware organization of memory address space in 8086.

    (b) Compare SRAM and DRAM.