

S-485

Total Pages : 3

Roll No.

MPHY-606

Memory Devices and 8085 Microprocessor

M.Sc. Physics (MSCPHY)

4th Semester Examination, 2022 (Dec.)

Time : 2 Hours]

[Max. Marks : 35

Note : This paper is of Thirty Five (35) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nine and Half ($9\frac{1}{2}$) marks each. Learners are required to answer any Two (02) questions only.

($2 \times 9\frac{1}{2} = 19$)

1. Compare different type of logic families and their performance characteristics.

2. Explain the memory architecture as well as memory interfacing to CPU with the help of suitable diagrams. Write a note on ROM family.
3. Explain pin diagram of Intel 8085 microprocessor. Explain the function of various status flags in 8085 microprocessor.
4. Explain the function of one pass and two pass assembler. Write an assembly language program to mask off 4 LSB's of a 8 bit numbers.
5. Write a short note on any *two* of the following :
 - (a) Emitter coupled logic.
 - (b) Memory architecture.
 - (c) Special purpose registers of 8085 microprocessors.
 - (d) Addressing modes of 8085 microprocessor.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)

1. Discuss the operation of NOR gate in NMOS logic with the help of a diagram.

2. What do you mean by Noise immunity and Noise margins of a logic circuit? Explain their importance on the performance of a digital system.
 3. What is RAM? Discuss different types of RAM and their characteristics.
 4. Explain memory organization of 8355 ROM with a block diagram.
 5. What do you mean by Interrupts in microprocessor? Discuss different Interrupts in 8085 microprocessor.
 6. Discuss the timing diagram for Opcode fetch cycle.
 7. Write an assembly language program to find smaller of two numbers.
 8. Discuss the classification of the Intel 8085 instructions set into various group with suitable example of each.
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