A-103

Total Pages : 3 **Roll No. ----------**

MPHY-606

Memory Devices and 8085 Microprocessor

M.Sc. Physics (MSCPHY)

4th Semester, Examination 2024 (June)

Time: 2:00 hrs Max. Marks: 35

Note : This paper is of Thirty five (35) marks divided into Two (02) Section A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section-A (Long-Answer-Type Questions)

Note : Section 'A' contains Five (05) long-answer-type questions of Nine and Half (9.5) marks each. Learners are required to answer any Two (02) questions only.

[2x9.5=19]

P.T.O.

Q.1. Define logic family and mention its different types. Compare different standard IC digital logic families.

Q.2. Explain memory architecture of read and write operation in memory. Compare RAM with ROM.

Q.3. What are the various registers used in 8085 microprocessors? Explain the function of all general-purpose registers and special purpose registers used in 8085 microprocessors.

Q.4. What do you mean by the term addressing moods? Explain various types of addressing modes of Intel 8085 microprocessor with suitable examples.

Q.5. Write short notes on any two of the following:

a. Fan in, fan out and propagation delay.

b. Emitter coupled logic (ECL)

c. Functional block diagram of 8085 microprocessor.

d. Loops in assembly language program.

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.

[4x4=16]

Q.1. Explain the CMOS inverter with the help of a diagram.

Q.2. What do you mean by the term noise immunity and noise margins? Explain.

Q.3. What is ROM? Mention different types of ROM and their characteristics.

Q.4. Explain INTEL 2764 EPROM with the help of suitable block diagram.

Q.5. What is the difference between CPU and microprocessor? Draw the schematic block diagram of microcomputer.

Q.6. What are interrupts? Name the different interrupts used in 8085 microprocessors in order of priority.

Q.7. Write the classification of the INTEL 8085 instruction set into various groups giving one example of each.

Q.8. Write an assembly language program to find the sum of two decimal numbers.

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