

P-945

Total Pages : 3

Roll No.

PHY-553

Memory Devices and Microprocessors

M.Sc. Physics (MSCPHY)

2nd Year Examination, 2023 (June)

Time : 2 Hours]

[Max. Marks : 70

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer 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 Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

1. What are semiconductor memories? Explain in details all types. Discuss advantages of static RAM A over dynamic RAM.

2. What do you understand by advanced microprocessor?
Discuss architecture of Micro Processor 80286.
3. What do you understand by emitter coupled logic? Discuss working of it. Discuss characteristics and advantage of ECL.
4. Explain addressing modes and instruction sets of Intel 8086 Microprocessor.
5. Write short note on any *two* of the following :
 - (a) Timing diagram.
 - (b) Comparisons of logic families.
 - (c) Data transfer scheme.
 - (d) Assembly language.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

1. Write pin configuration of INTEL 8085.
2. What are performance characteristics of logic families?

3. Explain priority interrupts controller of 8259.
 4. Write short note on Pentium microprocessor.
 5. Compare Micro Processor 80286 and 80386.
 6. Explain Priority interrupt control.
 7. Discuss architecture of 8086.
 8. Discuss programmable peripheral interface of 8255.
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