S-486

MPHY-607

Advance 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 (9½) marks each. Learners are required to answer any Two (02) questions only. (2×9½=19)

1. Explain the architecture of 8086 microprocessor with its supporting input/ output interface.

2. Discuss interfacing diagram of keyboard with the help of Programmable Peripheral Interface (8255) in detail.

3. Explain the working of Priority Interrupt Controller (8259) and how does it play the role for microprocessor.

4. Explain the Architecture and programming model of 80386 microprocessor.

5. Explain the block diagram of 8253 interval timer and discuss its functioning in details.

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. What are the differences between 8086, 80286 and 80386 microprocessors?

2. Explain the different Input/output operations used for microprocessor in brief.

3. Write a note on Intel Pentium processor. What are Intel Pentium Pro-Processor?

4. Explain the instruction set of 8086 microprocessor.

5. How the microprocessor can be used as a CPU? Discuss it in brief.

6. Draw the pin diagram of 80286 microprocessor.

7. Explain the different addressing modes of 8086 microprocessor.

8. Discuss the interrupt process in a microprocessor with help of 8259 interrupt controller.

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