

7. Explain branch instructions. Discuss unconditional and conditional jump using proper examples.
8. Discuss the programming model of 8086 microprocessor.

Total Pages : 4

Roll. No. :

Examination Session June-2022
(Fourth Semester)

MPHY-607

M.Sc. PHYSICS (MSCPHY)

[Advance Microprocessor]

Time : 2 Hours]

[Max. Marks : 40

Note : This paper is of Forty (40) marks divided into two (02) Section 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 Ten (10) marks each. Learners are required to answer any two (02) questions only. 2×10=20

1. (a) Using the functional block diagram of 8255 A PPI.
Explain its details.
- (b) Discuss how 8253 can be used as a rate generator.
2. Discuss the architecture of 8086 up and describe logical signals in minimum mode.
3. Make an interfacing diagram of keyboard and a seven segment LED with the help of 8255 A and discuss its working in detail.
4. (a) Make the block diagram of 8253 interval timer and discuss its functioning.
- (b) How the microprocessor can be used as a CPU ?
Explain with proper block diagram.
5. (a) Mention various modes of operations of 8255 A and explain its working in BSR mode.
- (b) What is the difference between 8085, 8086, 80286 and 80386 microprocessors ?

SECTION—B

(Short-Answer-Type Questions)

Note : Section ‘B’ contains eight (08) short-answer-type questions of Five (05) marks each. Learners are required to answer any four (04) questions only. $4 \times 5 = 20$

1. Describe the features of intel pentium processors.
2. Differentiate between minimum and maximum mode of control signals in 8086 μ p.
3. Describe how the interfacing 8259 A with 8085 A microprocessor is done.
4. Discuss the features of 8259 A interrupt controller.
5. Discuss 8086 μ p with demultiplexed address bus and generating control signals in minimum mode.
6. Write a note on Intel Pentium processor. What are Intel-Pentium Pro-Processor ?