

8. (a) Briefly describe the following :
- (i) Transducer
 - (ii) Microprocessor based Traffic light controller.
- (b) Describe how data acquisition and storage is done in PPI 8255.

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M. Sc. EXAMINATION, 2020

(Fourth Semester)

(B Scheme) (Re-appear)

Physics

PHY612B

MICROPROCESSOR AND INTERFACING

Time : 2½ Hours]

[Maximum Marks : 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Four* questions in all. All questions carry equal marks.

1. (a) Draw a neat and labeled diagram of PIN configuration of 8085 microprocessor and explain the function of each PIN.
(b) What is Flag ? Discuss the function of Flag register.
2. (a) Discuss various addressing modes of microprocessor 8085.
(b) Write an ALP program for addition of two hexadecimal numbers in 8085 microprocessor.
(c) Differentiate between Instruction cycle and Machine cycle.
3. (a) What is a microprocessor ? Using block diagram discuss the architecture of 8086 microprocessor.
(b) Discuss, what do you understand by procedures in microprocessors ? Explain various types of call instruction with reference to 8086 μ P.

4. (a) Explain how address of source of data is given along with instruction in microprocessor 8086.
(b) Write notes on the following :
 - (i) Interrupts
 - (ii) Directive.
5. (a) Describe in detail the architecture of 80486 microprocessor.
(b) List out important features of 80286 because of which it is considered as advanced version of 8086 microprocessor.
6. (a) With the help of block diagram describe the basic unit of Pentium Processor.
(b) Discuss how microprocessor is different from microcontroller.
(c) What is multitasking ?
7. (a) Explain briefly how microprocessor can be used to generate and measure frequency of waveform in an electronic circuit.
(b) Discuss how digital to analog conversion is done using D/A converters.