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Reg. No.....

Name.....

M.Sc. (BIO-MEDICAL INSTRUMENTATION) DEGREE EXAMINATION, JUNE 2023

Third Semester

BMI 304—MICROPROCESSOR BASED SYSTEM DESIGN

(2016 Admissions onwards — Regular/Supplementary/Mercy Chance)

Time : Three Hours Maximum : 100 Marks

Part A

Answer any **five** *questions.*

Each question carries 10 *marks.*

1. Explain architecture of 8085 with necessary diagrams.
2. Explain various 8086 addressing modes with examples.
3. Explain programmable timer interface (8253). Give example.
4. Discuss about centronix parallel interface standard.
5. Write an 8085 ALP to generate square wave, triangular wave and saw tooth wave.
6. Explain the working of 8086 maximum mode configuration. Draw the schematic diagram.

(5 × 10 = 50)

Part B

Answer any **ten** *of the following.*

Each question carries 5 *marks.*

1. Comment about 8085 control signals.
2. Explain stack in 8085.
3. Explain Pointer interface in detail.
4. Discuss about RAM, ROM and EPROM.
5. Write an ALP to find the sum and average of odd numbers from a set of numbers.
6. Compare memory mapipng and I/O mapping.

Turn over

7. Explain various logical instructions in 8085.
8. Explain modular programming in 8086.
9. Write about 8085 machine cycle.
10. Write an 8085 ALP to separate even numbers from the given that of 10 numbers and store them in another list.
11. Explain 8089 I/O processor in detail.
12. Discuss the considerations for memory interfacing.

(10 × 5 = 50)