M.Sc. DEGREE EXAMINATION,NOVEMBER 2019
II Year IV Semester
Microprocessor 8086 and Micro controller 8051

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. What are the modes of operation used in 8253.
2. How many counters are there in 8254?
3. Mention and explain the modes in which 8086 can operate.
4. What is pipeline processing?
5. List few string instructions of 8086.
6. What are four elements of an assembly language statement?
7. Explain the operation performed by DAA instruction of 8051.
8. What are embedded microcontrollers?
9. What is meant by resolution in ADC?
10. What is meant by step angle on stepper motor?
11. What is interval timer?
12. Write any two applications of microcontroller.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Draw the block diagram of programmable peripheral interface 8155.
14. Explain the interrupt mechanism, types and priority.
15. Describe any three of the addressing modes of 8086.
16. Explain the internal memory organization of 8051.
17. Describe the interfacing 8051 with D/A counters.
18. Write a note on embedded RISC processor.
19. Write an assembly language program to multiply eight bit numbers using 8051.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Explain the programmable peripheral interface 8255 and its various operating modes.

21. Describe the architecture of 8086 in detail.

22. Write an assembly language program to convert binary number to BCD.

23. Discuss the hardware of 8051 microcontroller with suitable block diagram.

24. Explain the following. a) LED display with 8051 b) Keyboard with 8051

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