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1941

Your Roll No. ....

B.Sc. Prog./III

E

EL-302 – Microprocessors and Micro Controllers

(Admissions of 2005 & onwards)

Time : 3 Hours

Maximum Marks : 75

*(Write your Roll No. on the top immediately  
on receipt of this question paper.)*

*Attempt any five of the following.*

*All Question carry equal marks.*

1. (a) Differentiate between microprocessor and microcomputer. (3)
- (b) Describe different types of interrupts in 8085 microprocessor in detail. (12)
2. (a) What are different control signals and how they are generated? (7)
- (b) Define subroutine. What is advantage of using subroutines? Explain with example? (8)

P.T.O.

3. (a) Draw and explain the timing diagram of the instruction MVI B, 20 H. (8)
- (b) How a delay is generated using a register pair? (7)
4. (a) Draw the 8279 logic block diagram. (12)
- (b) Why are stack pointer and program counter 16 bit registers. (3)
5. Write short note on the following:
- (a) 8253
- (b) 8051 microcontroller
- (c) parallel interface : IEEE-488 (5×3=15)
6. (a) List the operating modes of the 8255 programmable peripheral interface. (3)
- (b) Illustrate 8155 programmable I/O ports, timer and control word. (12)
7. (a) specify the bit of the control word for the 8255, which differentiate between I/O mode and the BSR mode. Explain it briefly. Mention the main steps necessary to communicate with peripheral through the 8255. (8)

- (b) What is DMA? Explain its utility. (7)
8. (a) Explain bus structure of 8085 microprocessor. (6)
- (b) Write an assembly language program to add two 16 bit numbers using DAD instruction. (9)