

B.E. DEGREE EXAMINATIONS: NOV/DEC 2010

V SEMESTER

ELECTRONICS AND COMMUNICATION ENGINEERING

U07EC503: Microprocessors and Its Applications

Time: Three Hours

Maximum Marks: 100

Answer All Questions:-

PART A (10 x 1 = 10 Marks)

1. In 8085 processor CALL is a _____ byte instruction
A) 2 B) 3 C) 4 D) 1
2. Vector address for RST 2 software interrupt is
A) 0000H B) 0010H C) 0020H D) 0030H
3. IC number for Key board and display interface is
A) 8251 B) 8253 C) 8279 D) 8259
4. BSR mode is the operating mode of
A) 8255 B) 8259 C) 8279 D) 8281
5. In linear addressing memory organization of 8086 the memory space is available to the processor in _____ linear array
A) One B) Two C) Three D) Four
6. In 8086 SAL/SHL is _____ Instruction
A) Data movement B) Arithmetic and Logic C) Iteration control D) Processor Control
7. 8051 Microcontroller is _____ pin IC
A) 24 B) 14 C) 40 D) 60
8. Baud rate for 8 bit transmission format in 8051 is _____ of oscillator frequency
A) 1/2 B) 1/4 C) 1/ 12 D) 1/24
9. 8051 can access _____ working registers.
A) 2 B) 4 C) 8 D) 16
10. CPL is the Mnemonic for _____ Boolean operator in 8051
A) AND B) OR C) XOR D) NOT

PART B (10 x 2 = 20 Marks)

11. List the addressing modes of 8085 processor
12. What is meant by masking the interrupts?
13. List the Three I/O modes of 8255 Programmable Peripheral Interface.

14. What is meant by Encoded scan in 8279?
15. Draw the 8086 flag register bit pattern.
16. What is meant by indirect program memory addressing in 8086?
17. List any four features of 8051 Microcontroller.
18. What is the operation of the mnemonic MOVC A, @ A +DPTR in 8051?
19. What is the use of PUSH and POP instructions in 8051?
20. Explain the Instruction XRL 20H, #10H in 8051.

PART C (5 x 14 = 70 Marks)

21. a) (i) Draw the functional block diagram of 8085 processor and explain in detail. (10)
(ii) Write the Assembly Language program in 8085 to add two 8 bit numbers using immediate addressing mode. (4)

(OR)

- b) Classify and explain the concepts of I/O interfacing techniques in 8085.

22. a) Explain the different operating modes and programming in 8255 interface.

(OR)

- b) Draw the block diagram of DAC interface and explain in detail.

23. a) Explain the different types of interrupts in 8086 with example.

(OR)

- b) (i) Write the Assembly Language program in 8086 to find the maximum number in the array. (6)
(ii) List the addressing modes in 8086 for accessing data in memory and explain with an example. (8)

24. a) Draw the memory structure in 8051 controller and give the details of external Data memory and program memory

(OR)

- b) Describe the serial port in 8051 with its operating modes and control register.

25. a) With examples explain the types of arithmetic instructions in 8051.

(OR)

- b) Explain the configuration and characteristics of 8051 timer registers and counters.
