



Register Number:

B.TECH DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2009)

Fourth Semester

TEXTILE TECHNOLOGY

ECE290: Electronics and Microprocessor for Textile Industry

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. The output expression corresponding to EXOR gate is given by
 - a) $(A + B)'$
 - b) $A'B' + AB$
 - c) $AB' + A'B$
 - d) $A + B$
2. Asynchronous counters are also called as
 - a) Parallel counters
 - b) Up counters
 - c) Ripple counters
 - d) Down counters
3. Which signal in 8085 microprocessor demultiplexes the address and data lines?
 - a) IN
 - b) OUT
 - c) ALU
 - d) ALE
4. Which interrupt in 8085 microprocessor is non-maskable?
 - a) TRAP
 - b) RST 5.5
 - c) RST 6.5
 - d) RST 7.5
5. The instructions, STAX B and MOV A,M in 8085 belongs to
 - a) Direct addressing mode
 - b) Indirect addressing mode
 - c) Register addressing mode
 - d) Immediate addressing mode
6. If the Port C bits are unused in 8255, then this indicates that 8255 operates in
 - a) Mode 0
 - b) BSR mode
 - c) Mode 1
 - d) Mode 2
7. In 8051 microcontroller, the number of bytes allocated for internal RAM is
 - a) 32
 - b) 64
 - c) 96
 - d) 128

b) Illustrate the memory organization, internal data operations, registers, timing and control signals of 8085 microprocessor.

23. a) (i) Describe the addressing modes of 8085 with suitable examples for each. (7)
(ii) Illustrate the simple I/O ports interfacing with 8255 using its control word format. (7)

(OR)

b) Discuss in detail the instruction set of 8085 with suitable examples belonging to each instruction group.

24. a) (i) Explain the 8051 microcontroller architecture with its block diagram. (7)
(ii) Discuss the memory organization structure in 8051 microcontroller. (7)

(OR)

- b) (i) Describe the timer operations and interrupt structure of 8051 microcontroller. (7)
(ii) Discuss some typical applications of microcontrollers. (7)

25. a) (i) With a block diagram, explain the architecture of PLC-CPU system. (7)
(ii) With the memory map diagram of a PLC, illustrate its memory organization. (7)

(OR)

- b) (i) Discuss the programming methods for PLC with a programming example. (7)
(ii) Discuss the applications of PLC and DCS in textile machinery. (7)

B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2014
ECE290: ELECTRONICS AND MICROPROCESSOR FOR TEXTILE INDUSTRY
IV SEMESTER
BRANCH: TEXTILE TECHNOLOGY

ANSWERS TO QUESTIONS WITH MULTIPLE CHOICE

PART A (10 X 1 =10 Marks)

- 1) (c)**
- 2) (c)**
- 3) (d)**
- 4) (a)**
- 5) (b)**
- 6) (b)**
- 7) (d)**
- 8) (a)**
- 9) (b)**
- 10) (c)**