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B.E. /B.TECH.(FULL TIME) DEGREE END SEMESTER EXAMINATION APRIL / MAY 2014

ELECTRONICS AND COMMUNICATION ENGINEERING.

FIFTH SEMESTER

EC 9303 - MICROPROCESSOR AND MICROCONTROLLERS.

(REGULATIONS 2008)

Duration: 3 Hrs.

Max. Mark:100

Answer All Questions.

Part A

10 X 2 = 20 Marks.

1. Give the difference between call and jump instruction of 8085 microprocessor.
2. What is the function of 8087 processor?
3. Draw and specify the complete flag bit of 8086 microprocessor.
4. List the number of interrupts available in 8086 microprocessor.
5. What is the maximum addressing capability of 8051 microcontroller?
6. Explain SWAP instruction available in 8051.
7. What is the function of the IC 8254?
8. What is the function of the IC 8259?
9. Draw the interfacing diagram for LCD display and microcontroller.
10. What is an I2C standard?

Part B

5 X 16 = 80 Marks.

11. (i). With a neat diagram explain the architecture of 8086 microprocessor. (8 Marks).
- (ii). Briefly explain the addressing modes available for 8086 microprocessor. (8 Marks).

- 12(a). Draw the timing diagram for the 8085 instruction LDA 4550H. (16 Marks).

(OR)

- 12(b). With a neat diagram explain the architecture of the microprocessor 8085. (16 Marks).

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13(a). With a neat diagram explain the keyboard and display controller IC8279. (16 Marks).

(OR)

13(b). With a neat diagram explain the function of programmable peripheral interface IC 8255. (16 Marks).

14(a). Explain the architecture and its associated special function registers of 8051 microcontroller. (16 Marks).

(OR)

14(b)(i). Briefly explain the branching instruction available in 8051 microcontroller. (8 Marks).

(ii). Write short notes on compilers available for 8051 microcontrollers. (8 Marks).

15(a)(i). Briefly explain the timers available in 8051 micro controller. (8 Marks).

(ii). Briefly explain the method of generating PWM using 8051 micro controller. (8 Marks).

(OR)

15(b)(i). Design a microcontroller based system to implement electronic weighing machine. (8 Marks).

(ii). Briefly explain the method of interfacing external memory with microcontroller. (8 Marks).
