B.E./ B.Tech (Full Time) DEGREE END SEMESTER EXAMINATION, APRIL / MAY 2011

ELECTRONICS AND COMMUNICATION ENGINEERING BRANCH

FIFTH SEMESTER

EC372 – MICROPROCESSOR AND ITS APPLICATION

(REGULATIONS 2004)

Time: Three hours.   Maximum: 100 marks

Answer All Questions.

Part A   10 X 2 = 20 Marks.

1. What is the role of SID and SOD pin available in 8085 microprocessor?

2. Explain the instruction DAD available in 8085.

3. Give the flags available in 8086.

4. What is pipelining.

5. How many register banks are available in 8051?

6. What are the two pins associated with counters in 8051?

7. Give the block diagram for DMA controller IC.

8. What is inter integrated circuits interfacing.

9. Draw the pin details of (16 x 2 line) Liquid Crystal Display.

10. What is an alpha numeric display?

Part B   5 X 16 = 80 Marks.

11(a).(i).Explain the architecture of 8086 microprocessor.   (8 Marks).

   (ii).Explain the maximum mode operation of 8086 microprocessor.   (8 Marks).

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12.(a) With a neat block diagram explain the architecture of 8051 microcontroller. (16 Marks).

(OR)

12.(b).(i).Explain the types of jump instructions available in 8051. (8 Marks).

(ii).Explain the timer / counter programming in 8051. (8 Marks).

13.(a). With a neat diagram explain the interrupt process available in 8085? (16 Marks).

(OR)

13.(b).Draw the timing diagram for the 8085 instruction CALL. Assume other relevant details. (16 Marks).

14.(a) With a neat block diagram explain the working of the Programmable display controller IC 8279. (16 Marks).

(OR)

14.(b)(i) Explain the IC 8259 with a neat block diagram. (8Marks).

(ii)Explain the IC 8251 with a neat block diagram. (8Marks).

15.(a).With a neat block diagram and schematic explain the construction and working of micro computer based smart scale. (16 Marks).

(OR)

15.(b).(i).Explain the working of optical motor shaft Encoder. (8 Marks).

(ii).Explain the role of microcontrollers in industrial process control. (8 Marks).