Reg. No. _____

Karunya University

(Karunya Institute of Technology and Sciences)

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – November/December 2010

Subject Title: ELECTRONICS AND MICROPROCESSORS **Time: 3 hours**

Subject Code: EC213 **Maximum Marks: 100**

Answer ALL questions

PART – A (10 x 1 = 10 MARKS)

1. The drop across a zener diode, when it is connected in the forward bias is _____.
2. State the need for biasing.
3. What do you mean by 31/2 digit DMM?
4. Name the ADC which is generally used in multi meter.
4. What is the need for analog and digital circuit?
6. Convert -120_d into 2's complement binary format.
7. What do you mean by 8 bit processor?
8. Find the addressing modes of the instruction given
   a. LHLD 4000H b. MVI A, 08H.
9. What do you mean by DMA?
10. What are USART and UART?

PART – B (5 x 3 = 15 MARKS)

11. Write the effect of feedback on the open loop gain of an opamp.
12. What is piezo electric effect?
13. Distinguish between Latch and FlipFlop.
14. List the types of addressing modes supported by 8085.
15. Draw the flowchart for synchronous and asynchronous data transfer schemes.

PART – C (5 x 15 = 75 MARKS)

16. Explain the input and output characteristics of CE configuration of BJT.

(OR)

17. Discuss the various analog arithmetic operations performed by an Opamp.

18. Explain the design of a multi meter with neat sketch.

(OR)

19. Draw the block schematic of a signal generator and describe its features.

20. Describe the operation of a Universal shift register with neat diagram.

(OR)

21. Design a 16 to 1 multiplexer with 2 to 1 multiplexers and explain the operation.

22. Explain the Intel 8085 architecture with neat sketch.

(OR)

23. Write an assembly level program for sorting of an array of numbers in ascending order.

24. Explain the following peripherals. a. Printer b. CRT c. Keyboard.

(OR)

25. Discuss the interfacing of an ADC with 8085 microprocessor.