Reg. No. _____

Karunya University

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

End Semester Examination – November / December 2009

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. What is the main difference between oscillator and amplifier?
2. What are the advantages of full wave rectifier over half wave rectifier?
3. Define precision.
4. What are thermistors?
5. What do you mean by unit distance code?
6. What are Universal logic gates?
7. What is program counter?
8. List the flags present in flag register of 8085.
9. Define interrupt.
10. State the need for interfacing.

PART – B (5 x 3 = 15 MARKS)

11. State Barkhausen criteria.
12. Define piezo electric effect.
13. Convert $(F8A.05D)_{16}$ to octal and decimal numbers.
14. Explain LDA 8A00, LHLD 8A00, MOV A, M instructions of 8085.
15. Differentiate between Asynchronous and Synchronous data transfer scheme.

PART – C (5 x 15 = 75 MARKS)

16. Classify amplifiers based on their biasing condition. Also, explain Class A Power amplifier.

(OR)

17. With a neat circuit diagram, explain half wave and full wave rectifiers.

18. With a neat block diagram, explain the working principle of multi-meter.

(OR)

19. Explain the construction and working principle of CRO.

20. With a neat logic diagram, explain the working principles of 4 to 1 multiplexer. Also, construct a 16 to 1 multiplexer using two 8 to 1 and one 2 to 1 multiplexers.

(OR)

21. Draw the schematic of 4 bit ripple counter and explain its operation with Truth Table and wave forms.

22. With a neat block diagram, explain the architecture of 8085 in detail.

(OR)

23. Explain different addressing modes of 8085 with examples.

24. Discuss with block diagram and flow chart any one application of microprocessor.

(OR)

25. Explain in detail about DMA data transfer scheme.