**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

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

**Supplementary Examination - June 2011**

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

**Subject Code: IT217 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. What is a data type?

2. What is the use of Instruction Pointer?

3. How is the 8086 instruction Set categorized?

4. Name the register that is used to store the count value, when the loop instruction is executed?

5. What is Bus Cycle?

6. Write any two data transfer instructions used in 8086.

7. What is DMA?

8. What is parallel printer interface?

9. What is hardware interrupt?

10. List the types of Interrupt.

**PART – B (5 x 3 = 15 MARKS)**

11. List the names of the pointer and index registers and explain any one.

12. Write an assembly language program to add two 16-bit numbers in 8086.

13. Differentiate maximum mode and minimum mode system.

14. Draw the block diagram of keyboard display interfaces.

15. What is interrupt vector table?

**PART – C (5 x 15 = 75 MARKS)**

16. Explain the architecture of 8086 microprocessor with a neat diagram.

(OR)

17. Describe memory address space and data organization in 8088/8086 microprocessor.

18. Explain the address formation and addressing modes of 8086 in detail. Give suitable examples.

(OR)

19. Write short notes on a. Integer Instructions and computations. (7)

b. Control flow instructions and program structures (8)

20. Draw a neat sketch and describe about maximum mode operation.

(OR)

21. a. Draw the timing diagram of read / write machine cycle with diagram. (8)

b. Explain in detail about memory interface circuit. (7)

22. Discuss with neat diagrams the operation of 8255A Programmable Peripheral Interface.

(OR)

23. Explain 8279 programmable keyboard/display controller in detail.

24. Describe with block diagrams the function of 8259 A Programmable Interrupt Controller.

(OR)

25. a. Explain about internal interrupt functions.

b. Discuss about the different types of 8086/8088 microprocessor software interrupts.