**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: 09IT206 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. What is instruction queue mechanism?

2. What do you mean by the data type double word?

3. Which is the source operand in the instruction: MOV DX, CS?

4. What does STC stand for?

5. What are different modes of configuration in 8088?

6. Name the technology used to fabricate the 8088 and 8086 microprocessors.

7. The process of synchronizing a peripheral is called\_\_\_\_\_\_\_\_.

8. What is CUI?

9. What does IRET instruction do?

10. What is DEN and MCE?

**PART – B (5 x 3 = 15 MARKS)**

11. Give the steps involved in assembling the source program into an object program.

12. The contents of register BX and CX are 123416 and 012316 respectively and carry flag is 0. What is the result of executing the instruction SBB BX, CX?

13. What is the duration of the bus cycle in the 8088 based microcomputer if the clock is 8 MHz and two wait states are inserted?

14. A ROM has15 address lines and eight data lines. How many bytes of information can be stored in the ROM? What is its total storage capacity?

15. What are different groups of interrupts?

**PART – C (5 x 15 = 75 MARKS)**

16. Discuss the architecture and software model of 8088/8086 microprocessor.

(OR)

17. Explain: a. Operation of stack b. Pointer and Index Registers. (8+7)

18. Explain different types of addressing modes in 8088/8086.

(OR)

19. Explain the basic string operations in 8088/8086.

20. Explain hardware organization of the memory address space.

(OR)

21. Elaborate in detail about the minimum and maximum mode control signals.

22. Describe the internal architecture of 8237.

(OR)

23. Explain the programmable peripheral interface with a neat block diagram.

24. Discuss about the internal interrupt functions in detail.

(OR)

25. Explain the internal architecture of the 8259 in detail.