Tamil Nadu Open University M.C.A

Master of Computer Applications (MCA) - MCA06-PGDCA05

Introduction to Computer Organization

Second Semester

M.C.A./P.G.D.C.A DEGREE EXAMINATION Time: 3 hours

Maximum marks: 75

JANUARY, 2006.

Answer any FIVE questions.
PART A (5 x 5 =25 marks)

1. With a neat sketch discuss the Von Neumann architecture.

2. Give the truth table for:
(a) A Three input AND gate.
(b) A Three input OR gate.

3. What is a peripheral device? Give an example for a peripheral device and discuss the same.

4. List and discuss the various steps in executing an instruction.

5. State and discuss the major functions performed by the ALD.

6. Develop an assemble language program to find the greatest of two numbers.

7. Distinguish between high level language, assembly language, and machine language. Give relevant examples.

PART B (5 x 10 =50 marks)
Answer any FIVE questions.

8. With examples discuss error detection and error correction codes.

9. (a) State the result of the following Boolean expressions: (5)
(i) a+â (ii) a.â
(iii) a + a (iv) a.a
(v) a.1 (vi) a + 1

(b) Are the terms combinational logic circuit and sequential logic circuit the same? Discuss.

10. What is random access memory? Discuss the different types of random access memories.

11. With examples discuss any four addressing modes.

12. With a neat sketch discuss the structure of a Central Processing Unit.

13. With a neat sketch discuss the architecture of a micro computer.

14. Develop an assembly language program to arrange a give set of numbers in ascending order.