MCA DEGREE I SEMESTER EXAMINATION, DECEMBER 2005

CAS 2104 COMPUTER ORGANIZATION

Time: 3 Hours Maximum marks : 50

PART A

(Answer ***ALL*** questions)
(Each questions carry ***TWO*** marks)

(5 x 6 = 30)

I. (a) Design a half subtractor.
(b) State and prove De-Morgan's theorem.
(c) Write short notes on alphanumeric codes.

II. (a) Briefly explain the concept of cache memory.
(b) Differentiate state RAM and dynamic RAM
(c) Discuss the functioning of ALU.

III (a) What do you mean by vectored interrupt?
(b) What are peripheral devices?
(c) How does VDU works?

IV (a) What are addressing modes? Briefly explain.
(b) What are control flags? Name the various control flags.
(c) Write short note on instruction set.

V. (a) What is a subroutine?
(b) Write an assembly language program to add two numbers.
(c) What is an assembler?

PART B

(Answer ***ALL*** questions)
(Each questions carry ***FOUR*** marks)

(5 x 4 = 20)

VI A. Design and set up a decade asynchronous counter.

OR

VI B. Draw a master slave JK Flip flop and give its excitation table.

VII. A. Discuss about the organization of memory.

OR

VII. B. Explain virtual memory organization

VIII. A. What is an interrupt? What are different interrupt driven data transfer schemes?

OR

VIII. B. Explain the different types of storage devices.

IX. A. Draw the internal block diagram of a 16 – bit microprocessor.

OR

IX. B. Discuss about the various registers and their functions.

X. A. Write an assembly language program to multiply two numbers.

OR

X. B. Write an assembly language program to find the smallest of 'n' numbers.

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