Code No. BTS 119 (B₁)

## CS 305 COMPUTER ORGANIZATION
*(1995 Admissions)*

Time: 3 Hours                                                    Maximum Marks: 100

### MODULE - I

I.  (a) With a neat diagram explain the functional units of a digital computer. (10)
    (b) What are the different addressing modes of IBM- 370? Explain. (10)

**OR**

II. (a) Explain the instruction set of PDP-II with examples. (10)
    (b) What is a subroutine? Explain with an example. (5)
    (c) Explain Encoding of an Instruction. (5)

### MODULE - II

III. (a) Explain single and Two Bus structures. (5)
     (b) Write short notes on bit slice processor. (5)
     (c) Explain the operation of Hardwired Control unit with a neat diagram. (10)

**OR**

IV. (a) Differentiate Hardwired and Microprogrammed control unit. (6)
    (b) Explain Two Bus and Three Bus structure with neat diagram. (6)
    (c) Explain the different methods for generating control signals in a CPU. (8)

### MODULE - III

V. Write short notes on the following:
   (i)   Impact Printers        (ii)   IEEE 488
   (iii) Multibus II                              (8+6+6 = 20)

**OR**

VI. (a) What is an I/O interface? Explain Serial and Parallel Interface. (10)
    (b) Write short notes on the following:
        (i)   Magnetic tape        (ii)   CD-ROM        (6 + 4 = 10)

### MODULE - IV

VII. (a) Design a 16 bit fast adder using 4 bit carry look ahead adder and 4 bit
         Carry look ahead generator chips. (10)
     (b) Explain Booth's algorithm with an example. (10)

**OR**

VIII. (a) Explain IEEE floating point standard. (10)
      (b) What are the different methods of integer division? Explain. (10)

### MODULE - V

IX. (a) Differentiate Static and Dynamic Memories. (8)
    (b) Write short notes on the following:
        (i)   Cache memory        (ii)   Virtual memory        (6 + 6 = 12)

**OR**

X. (a) Discuss on Semiconductor ROM memories. (10)
   (b) Distinguish between Associative mapping Cache and Block-set associative
       mapping Cache. (10)

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