Code No. BTS 119 (B)

B.TECH. DEGREE III SEMESTER (SUPPLEMENTARY) EXAMINATION IN
COMPUTER SCIENCE AND ENGINEERING
JUNE 2001

CS 305 COMPUTER ORGANISATION
(1998 Admissions)

Time: 3 Hours   Maximum Marks: 100

MODULE - I

I.   (a) What are the different addressing modes available in a general computer?
          Give examples.   (10)
     (b) What is stack? What is the advantage of having a stack?   (5)
     (c) Briefly explain the bus structure of a computer.   (5)

OR

II. (a) Explain the basic steps needed for execution of an instruction.   (10)
     (b) Explain the different groups of instruction based on the operations performed
          by them. Give examples.   (10)

MODULE - II

III. (a) What is a fast adder?   Show the design of 16 bit fast adder using 4 bit carry look
          ahead adder.   (10)
     (b) Explain Booth Algorithm for multiplication with an example.   (10)

OR

IV. (a) Briefly explain microprogrammed control unit with necessary diagrams. (10)
     (b) How floating point numbers are represented in a computer? Explain the basic
          addition algorithm for floating point addition.   (10)

MODULE - III

V.   (a) Explain the difference between I/O mapped I/O and memory mapped I/O. (8)
     (b) What is Direct Memory Access? Explain the different modes of operation. (12)

OR

VI.   Write short notes on the following:
               (i)   CRT terminals   (ii)   CD ROMs
               (iii) Magnetic Disk   (iv)   Magnetic Tapes   (20)

MODULE - IV

VII. (a) Distinguish between Static and Dynamic memories.   (8)
     (b) What is hit ratio? Explain the direct mapping used in Cache memory. (12)

OR

VIII.(a) Compare Cache and virtual memory.   (8)
     (b) Explain the address translation techniques used in virtual memory. (12)

MODULE - V

IX. (a) Explain the features of pipelined processors.   (10)
     (b) Explain Flynn's classification of parallel processing methods.   (10)

OR

X.   (a) Briefly explain different multiprocessor configurations.   (10)
     (b) What is meant by pipelining? Explain 4 stage pipeline and compare its
          performance with a non pipelined computer.   (10)

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