Semester-V
Course. B.Sc. (Hons) IT
Paper Code: BSIT - 501
Nomenclature: - Computer System Architecture-I

Max. Marks: 45+5*
Time: 3hrs.

UNIT -I

<u>Basic Computer Organisation and Design:</u> Instruction Codes, Computer registers, Computer Instructions, Timing and Control, Instruction Cycle, Memory reference instructions, Input-Output and Interrupt, Design of Basic computer, Design of accumulator logic

UNIT -II

<u>Register Transfer and Microoperations</u>: Register Transfer Language (RTL), register transfer, Bus and Memory Transfers, Arithmetic Microoperations, Logic Microoperations, Shift Microoperations, Arithmetic Logic Shift Unit

UNIT -III

<u>Microprogrammed Control:</u> Control memory; address sequencing, microprogram sequencer, Design of Control Unit

UNIT -IV

<u>Central Processing Unit:</u> General registers Organization, Stack Organization, Instruction formats, Addressing Modes, Data Transfer and Manipulation, Program Control, Program Interrupt, Reduced Instruction Set Computer (RISC), CISC characteristics.

References : 1. Computer System Architecture   By. Moris Mano
              2. Computer Architecture and Organization   By J.P. Hayes