

2124

B.E. (Information Technology)
Third Semester

PC-IT-302: Computer Architecture and Organization

Max. Marks: 50

Time allowed: 3 Hours

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Explain the following terms:-

- (a) Multiprocessor
- (b) Hit ratio
- (c) Associative memory
- (d) Interrupt
- (e) Instruction

(5x2)

UNIT - I

II. With the help of diagram explain the working of common bus system in computer architecture. (10)

III. (a) What are various instruction formats? Explain with the help of diagram. (6,4)
(b) Explain processor level design.

IV. With the help of diagram explain the architecture of control unit of computer system. (10)

UNIT - II

V. (a) What is the advantage of a set associative versus direct mapping of cache?
(b) What are the functions of cache memory? Explain the terms cache hit and cache miss. (5,5)

VI. With the help of diagram explain the working of DMA Controller. (10)

VII. Explain the various types of interconnection structures used in parallel processing. (10)

x-x-x