CSETUBE – Xclusive Xpectations

CS2253 - COMPUTER ORGANIZATION AND ARCHITECTURE

UNIT – I
BASIC STRUCTURE OF COMPUTER

1. What do you mean by addressing modes? Explain various addressing modes with the help of examples.
2. Draw and explain the block diagram of a simple computer with five functional units.
3. What is RISC? Explain with proper example.

UNIT- II
Basic Processing Unit

1. What is meant by microprogramming? Draw and explain the micro programmed control unit.
2. What is meant by hardwired control? Draw and explain typical hardwire control unit.
3. Explain in detail about nano programming and list out its benefits.

UNIT-III
Pipelining

1. Draw and explain the modified three-bus structure of the processor suitable for four stage pipelined execution. How this structure is suitable to provide four-stage pipelined execution?
2. State and explain the different types of hazards that can occur in a pipeline.
3. Draw and explain the structure of a superscalar processor. Also explain the flow of instruction execution in it.

UNIT-IV
Memory System

1. Draw and explain the various types of secondary storage devices.
2. Define cache memory. Explain the mapping process followed in cache memory. Also discuss the relative advantages and disadvantages of the mapping techniques used.
3. What is virtual memory? Why is it necessary to implement virtual memory? Explain the virtual memory address translation.

UNIT-V
I/O ORGANIZATION

1. What is DMA? Explain the block diagram of DMA .Also describe how DMA is used to transfer data from peripherals.
2. Explain the features of USB,PCI,SCSI bus.