



# SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION



Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

1. Distinguish DRAM and SRAM.
2. Compare direct-mapped and set-associative cache mapping.
3. List two types of interrupts commonly found in computer systems.
4. Define Instruction Level Parallelism (ILP) in computer architecture.
5. Identify primary purpose of a Graphics Processing Unit (GPU) in a computer system.
6. Brief the primary purpose of Virtual Memory.
7. Define Cache Hit and Cache Miss.
8. What is ISR
9. List the challenges of implementing instruction level parallelism
10. Outline SCSI.
11. How are interrupts handled?
12. Define multi-core processor.
13. Infer the need of USB architecture?
14. Infer the concept of hit ratio.
15. How to Improve Performance?
16. Differentiate physical and virtual memory.
17. What is data register?
18. State the main idea of ILP.

## PART B

1. Assess the significance of incorporating cache memory in computer systems. How does cache memory address the need for faster access to frequently used data and instructions?

Or

Assess the impact of cache misses on system performance, and suggest strategies to minimize their occurrence.

2. Examine how Direct Memory Access (DMA) enhances overall system performance.
3. Analyze how virtual memory management contribute to efficient memory utilization in a computer system.

Or

Evaluate the effectiveness of virtual memory in managing system resources.

4. Describe the key processes involved in accessing I/O devices.

5. What is meant by Interrupt? Evaluate the strategies employed by ISR to prioritize and handle Multiple interrupt sources.
6. Illustrate the importance of memory management requirements in a multiprocessor and Multitasking system.
7. Write a Short notes on
  - a. Peripheral Component Interface ( PCI)
  - b. Small Computer System Interface (SCSI)
  - c. Universal Serial Bus ( USB)
8. Explain in detail about Semiconductor memories and examine the performance considerations of memory system.
9. Explain GPUs and analyze how GPU differ from Central Processing Units (CPUs).
10. Analyze how Instruction level parallelism improves the system performance and list out the challenges.