**UNIT-III**

**(2 marks)**

1. **List memory hierarchy according to the speed.**
2. **What is auxiliary memory? List out some auxiliary storage devices.**
3. **What is associative memory?**
4. **What is the purpose of cache memory?**
5. **Define Hit Ratio?**
6. **Define Hit and Miss**
7. **What is virtual memory?**
8. **What is a Page in virtual memory?**
9. **What are the performance considerations of cache memory?**
10. **What is Miss Penalty?**

**UNIT-IV**

1. **What is the purpose of I/O interface?**
2. **List out various modes of transfers?**
3. **What is programmed I/O?**
4. **What is interrupt initiated I/O?**
5. **What are the various registers used in DMA?**
6. **What is cycle stealing?**
7. **What is DMA?**
8. **Explain asynchronous bus in input operation with timing diagram**
9. **What is burst transfer?**

**UNIT-V**

1. **what is pipelining?**
2. **What are the different types of hazards?**
3. **Define hazard?**
4. **What are the classifications of parallel processing?**
5. **What are instruction hazards?**
6. **Explain about UMA structure?**
7. **Explain about distributed network protocol?**
8. **What are the different interconnection networks?**
9. **Explain about array processor?**
10. **marks questions**

**UNIT-3**

**1 Explain about cache memory?**

**2 What are the performance considerations of cache memory?**

**3 Explain about virtual memory?**

**4 Explain about secondary storage devices?**

**5 What are the different semiconductor RAM memories, Read-only memories?**

**UNIT-4**

1. **Explain about DMA?**
2. **Explain about interrupts?**
3. **A) Explain about busses?**

**b) Explain about PCI bus?**

1. **Explain about input interface circuit?**
2. **Explain about output interface circuit?**
3. **Explain serial port communication?**
4. **Explain about parallel port communication?**

**UNIT-5**

1. **Explain about Data hazards?**
2. **Explain about instruction hazards?**
3. **Explain about interconnection networks?**
4. **Explain about array processors?**
5. **Explain about Flynn’s classification?**

**(or)**

**Explain classification of parallel processing?**