UNIT-IV

MEMORY SYSTEM

PART A

1. Give the classification of the Optical Media

Optical media can be classified as

CD-ROM – Compact Disk Read Only MemoryWORM –

Write Once Read Many

Rewriteable - Erasable

Multifunction – WORM and Erasable

2. What is a Mini Disk?

Minidisk for data (MD-Data) is the data version of the new rewriteable storage format developed by Sony Corporation for both business and entertainment as a convenient medium for carrying music , video and data. MD can be used in three formats to support all potential uses as follows:

--A premastered optical disk

--A recordable magneto-optical disk

--A hybrid that is partially mastered and partially recordable

3. List some applications for WORM.

Some of the application or WORM devices are

--On-Line catalogs such as automobile party's dealer

--Large Volume Distribution

--Transaction logging such as stock trading company

--Multimedia Archival

4. What are multifunctional drives

A multifunctional drive is a single unit which is capable of reading and writing a variety of disk media. This type of drive provides the permanence of a read-only device as well as full flexibility of a rewriteable device along with the powerful intermediate write once capability

5. What are types of technology used in s multifunctional drive?

Three types of technologies utilized for multifunctional drives are

*Magneto – Optical Disk for both rewriteable and WORM capability

*Magneto- Optical disk for rewriteable and dye polymer disk for WORM capability

*Phase change technology for both rewriteable and WORM capability

6.What is Migration and Archiving?

The process of moving an object from one level in the storage hierarchy to another level in that hierarchy is called migration. Migration of Objects to off-line media and removal of these objects from on-line media is called archiving.

7. Explain virtual memory technique.

Techniques that automatically move program and data blocks into the physical memory when they are required for execution are called virtual memory technique

8. What are virtual and logical addresses?

The binary addresses that the processor issues for either instruction or data are called virtual or logical addresses.

9. Define translation buffer.

Most commercial virtual memory systems incorporate a mechanism that can avoid the bulk of the main memory access called for by the virtual to physical addresses translation buffer. This may be done with a cache memory called a translation buffer.

10. What are static and dynamic memories?

Static memory are memories which require periodic no refreshing. Dynamic memories are memories, which require periodic refreshing.

PART B

1. Define cache memory. Explain the mapping process followed in cache memory. Also discuss

2. 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

4. memory address translation.

5. Draw and explain the various types of secondary storage devices.