Unit-3 MCQs

1. The dining – philosophers problem will occur in case of \_\_\_\_\_\_\_\_\_\_\_\_  
 a) 5 philosophers and 5 chopsticks  
 b) 4 philosophers and 5 chopsticks  
 c) 3 philosophers and 5 chopsticks  
 d) 6 philosophers and 5 chopsticks  
 View Answer

Answer: a

2.A deadlock free solution to the dining philosophers problem \_\_\_\_\_\_\_\_\_\_\_\_  
 a) necessarily eliminates the possibility of starvation  
 b) does not necessarily eliminate the possibility of starvation  
 c) eliminates any possibility of any kind of problem further  
 d) none of the mentioned  
 View Answer

Answer: b

3.All processes share a semaphore variable mutex, initialized to 1. Each process must execute wait(mutex) before entering the critical section and signal(mutex) afterward. Suppose a process executes in the following manner.

signal(mutex);

.....

critical section

.....

wait(mutex);

In this situation :  
 a) a deadlock will occur  
 b) processes will starve to enter critical section  
 c) several processes maybe executing in their critical section  
 d) all of the mentioned  
 View Answer

Answer: c

4.What are the two kinds of semaphores?  
 a) mutex & counting  
 b) binary & counting  
 c) counting & decimal  
 d) decimal & binary  
 View Answer

Answer: b

5. What is a mutex?  
 a) is a binary mutex  
 b) must be accessed from only one process  
 c) can be accessed from multiple processes  
 d) none of the mentioned  
 View Answer

Answer: b

6. Semaphores are mostly used to implement \_\_\_\_\_\_\_\_\_\_\_\_  
 a) System calls  
 b) IPC mechanisms  
 c) System protection  
 d) None of the mentioned  
 View Answer

Answer: b

7. Spinlocks are intended to provide \_\_\_\_\_\_\_\_\_\_ only.  
 a) Mutual Exclusion  
 b) Bounded Waiting  
 c) Aging  
 d) Progress  
 View Answer

Answer: b

8. TestAndSet instruction is executed \_\_\_\_\_\_\_\_\_\_\_\_  
 a) after a particular process  
 b) periodically  
 c) atomically  
 d)none of the mentioned  
 View Answer

Answer: c

9.Semaphore is a/an \_\_\_\_\_\_\_ to solve the critical section problem.  
 a) hardware for a system  
 b) special program for a system  
 c) integer variable  
 d) none of the mentioned  
 View Answer

Answer: c

10.The wait operation of the semaphore basically works on the basic \_\_\_\_\_\_\_ system call.  
 a) stop()  
 b) block()  
 c) hold()  
 d) wait()  
 View Answer

Answer: b

11.A monitor is a type of \_\_\_\_\_\_\_\_\_\_\_\_  
 a) semaphore  
 b) low level synchronization construct  
 c) high level synchronization construct  
 d) none of the mentioned  
 View Answer

Answer: c

12.A system is in the safe state if \_\_\_\_\_\_\_\_\_\_\_\_

a) the system can allocate resources to each process in some order and still avoid a deadlock

b) there exist a safe sequence

c) all of the mentioned

d) none of the mentioned

View Answer: a

13.Which one of the following is the deadlock avoidance algorithm?

a) banker’s algorithm

b) round-robin algorithm

c) elevator algorithm

d) karn’s algorithm

View Answer: a

14.A problem encountered in multitasking when a process is perpetually denied necessary resources is called \_\_\_\_\_\_\_\_\_\_\_\_

a) deadlock

b) starvation

c) inversion

d) aging

View Answer : b

15. Which one of the following is a visual ( mathematical ) way to determine the deadlock occurrence?

a) resource allocation graph

b) starvation graph

c) inversion graph

d) none of the mentioned

View Answer: a

Unit-4 MCQ’s

1. CPU fetches the instruction from memory according to the value of \_\_\_\_\_\_\_\_\_\_\_\_

a) program counter

b) status register

c) instruction register

d) program status word

View Answer: a

1. Which one of the following is the address generated by CPU?

a) physical address

b) absolute address

c) logical address

d) none of the mentioned

Answer: c

1. Run time mapping from virtual to physical address is done by \_\_\_\_\_\_\_\_\_\_\_\_

a) Memory management unit

b) CPU

c) PCI

d) None of the mentioned

View Answer: a

1. Memory management technique in which system stores and retrieves data from secondary storage for use in main memory is called?

a) fragmentation

b) paging

c) mapping

d) none of the mentioned

Answer: b

1. The address of a page table in memory is pointed by \_\_\_\_\_\_\_\_\_\_\_\_

a) stack pointer

b) page table base register

c) page register

d) program counter

View Answer

Answer: b

1. Program always deals with \_\_\_\_\_\_\_\_\_\_\_\_  
    a) logical address  
    b) absolute address  
    c) physical address  
    d) relative address  
    View Answer

Answer: a

1. The page table contains \_\_\_\_\_\_\_\_\_\_\_\_  
    a) base address of each page in physical memory  
    b) page offset  
    c) page size  
    d) none of the mentioned  
    View Answer

Answer: a

1. What is compaction?  
    a) a technique for overcoming internal fragmentation  
    b) a paging technique  
    c) a technique for overcoming external fragmentation  
    d) a technique for overcoming fatal error  
    View Answer

Answer: c

1. Operating System maintains the page table for \_\_\_\_\_\_\_\_\_\_\_\_  
    a) each process  
    b) each thread  
    c) each instruction  
    d) each address  
    View Answer

Answer: a

1. The main memory accommodates \_\_\_\_\_\_\_\_\_\_\_\_

a) operating system

b) cpu

c) user processes

d) all of the mentioned

Answer: a

1. What is the operating system?  
    a) in the low memory  
    b) in the high memory  
    c) either low or high memory (depending on the location of interrupt vector)  
    d) none of the mentioned  
   Answer: c
2. In contiguous memory allocation \_\_\_\_\_\_\_\_\_\_\_\_  
    a) each process is contained in a single contiguous section of memory  
    b) all processes are contained in a single contiguous section of memory  
    c) the memory space is contiguous  
    d) none of the mentioned  
   Answer: a
3. The relocation register helps in \_\_\_\_\_\_\_\_\_\_\_\_

a) providing more address space to processes

b) a different address space to processes

c) to protect the address spaces of processes

d) none of the mentioned

Answer: c

1. . With relocation and limit registers, each logical address must be \_\_\_\_\_\_\_ the limit register.  
    a) less than  
    b) equal to  
    c) greater than  
    d) none of the mentioned  
   Answer: a
2. The operating system and the other processes are protected from being modified by an already running process because \_\_\_\_\_\_\_\_\_\_\_\_

a) they are in different memory spaces

b) they are in different logical addresses

c) they have a protection algorithm

d) every address generated by the CPU is being checked against the relocation and limit registers

Answer: d

1. Transient operating system code is code that \_\_\_\_\_\_\_\_\_\_\_\_  
    a) is not easily accessible  
    b) comes and goes as needed  
    c) stays in the memory always  
    d) never enters the memory space  
   Answer: b
2. Using transient code, \_\_\_\_\_\_\_ the size of the operating system during program execution.  
    a) increases  
    b) decreases  
    c) changes  
    d) maintains  
   Answer: c
3. When memory is divided into several fixed sized partitions, each partition may contain  
    a) exactly one process  
    b) at least one process  
    c) multiple processes at once  
    d) none of the mentioned  
   Answer: a
4. In fixed size partition, the degree of multiprogramming is bounded by \_\_\_\_\_\_\_\_\_\_\_  
    a) the number of partitions  
    b) the CPU utilization  
    c) the memory size  
    d) all of the mentioned  
   Answer: a
5. The first fit, best fit and worst fit are strategies to select a \_\_\_\_\_\_  
    a) process from a queue to put in memory  
    b) processor to run the next process  
    c) free hole from a set of available holes  
    d) all of the mentioned  
   Answer: c
6. In internal fragmentation, memory is internal to a partition and \_\_\_\_\_\_\_\_\_\_\_\_

a) is being used

b) is not being used

c) is always used

d) none of the mentioned

Answer: b

1. A solution to the problem of external fragmentation is \_\_\_\_\_\_\_\_\_\_\_\_  
    a) compaction  
    b) larger memory space  
    c) smaller memory space  
    d) none of the mentioned  
    Answer: a
2. Another solution to the problem of external fragmentation problem is to \_\_\_\_\_\_\_\_\_\_\_\_  
    a) permit the logical address space of a process to be noncontiguous  
    b) permit smaller processes to be allocated memory at last  
    c) permit larger processes to be allocated memory at last  
    d) all of the mentioned  
    Answer: a
3. If relocation is static and is done at assembly or load time, compaction \_\_\_\_\_\_\_\_\_

a) cannot be done

b) must be done

c) must not be done

d) can be done

Answer: a

1. The disadvantage of moving all process to one end of memory and all holes to the other direction, producing one large hole of available memory is \_\_\_\_\_\_\_\_\_\_\_\_  
    a) the cost incurred  
    b) the memory used  
    c) the CPU used  
    d) all of the mentioned  
   Answer: a
2. \_\_\_\_\_\_\_\_\_\_ is generally faster than \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_

a) first fit, best fit, worst fit

b) best fit, first fit, worst fit

c) worst fit, best fit, first fit

d) none of the mentioned

Answer: a

1. External fragmentation exists when?  
    a) enough total memory exists to satisfy a request but it is not contiguous  
    b) the total memory is insufficient to satisfy a request  
    c) a request cannot be satisfied even when the total memory is free  
    d) none of the mentioned  
   Answer: a
2. External fragmentation will not occur when?  
    a) first fit is used  
    b) best fit is used  
    c) worst fit is used  
    d) no matter which algorithm is used, it will always occur  
   Answer: d
3. Sometimes the overhead of keeping track of a hole might be \_\_\_\_\_\_\_\_\_\_\_\_  
    a) larger than the memory  
    b) larger than the hole itself  
    c) very small  
    d) all of the mentioned  
   Answer: b
4. When the memory allocated to a process is slightly larger than the process, then  
    a) internal fragmentation occurs  
    b) external fragmentation occurs  
    c) both internal and external fragmentation occurs  
    d) neither internal nor external fragmentation occurs  
   Answer: a

Unit-5 MCQs

1. \_\_\_\_\_\_ is a unique tag, usually a number identifies the file within the file system.

a) File identifier

b) File name

c) File type

d) None of the mentioned

Answer: a

1. To create a file \_\_\_\_\_\_\_\_\_\_\_\_  
    a) allocate the space in file system  
    b) make an entry for new file in directory  
    c) allocate the space in file system & make an entry for new file in directory  
    d) none of the mentioned  
   Answer: c
2. By using the specific system call, we can \_\_\_\_\_\_\_\_\_\_\_\_  
    a) open the file  
    b) read the file  
    c) write into the file  
    d) all of the mentioned  
   Answer: d
3. File type can be represented by \_\_\_\_\_\_\_\_\_\_\_\_

a) file name

b) file extension

c) file identifier

d) none of the mentioned

Answer: b

1. Which file is a sequence of bytes organized into blocks understandable by the system’s linker?  
    a) object file  
    b) source file  
    c) executable file  
    d) text file  
    View Answer : a
2. What is the mounting of file system?

a) crating of a filesystem

b) deleting a filesystem

c) attaching portion of the file system into a directory structure

d) removing the portion of the file system into a directory structure

Answer: c

1. Mapping of file is managed by \_\_\_\_\_\_\_\_\_\_\_\_  
    a) file metadata  
    b) page table  
    c) virtual memory  
    d) file system  
   Answer: a
2. Mapping of network file system protocol to local file system is done by \_\_\_\_\_\_\_\_\_\_\_\_  
    a) network file system  
    b) local file system  
    c) volume manager  
    d) remote mirror  
   Answer: a
3. Which one of the following explains the sequential file access method?  
    a) random access according to the given byte number  
    b) read bytes one at a time, in order  
    c) read/write sequentially by record  
    d) read/write randomly by record  
   Answer: b
4. When will file system fragmentation occur?  
    a) unused space or single file are not contiguous  
    b) used space is not contiguous  
    c) unused space is non-contiguous  
    d) multiple files are non-contiguous  
   Answer: a
5. Management of metadata information is done by \_\_\_\_\_\_\_\_\_\_\_\_

a) file-organisation module

b) logical file system

c) basic file system

d) application programs

Answer: b

1. A file control block contains the information about \_\_\_\_\_\_\_\_\_\_\_\_  
    a) file ownership  
    b) file permissions  
    c) location of file contents  
    d) all of the mentioned  
   Answer: d
2. Which table contains the information about each mounted volume?  
    a) mount table  
    b) system-wide open-file table  
    c) per-process open-file table  
    d) all of the mentioned  
   Answer: d
3. To create a new file application program calls \_\_\_\_\_\_\_\_\_\_\_\_

a) basic file system

b) logical file system

c) file-organisation module

d) none of the mentioned

Answer: b

1. What will happens when a process closes the file?  
    a) per-process table entry is not removed  
    b) system wide entry’s open count is decremented  
    c) all of the mentioned  
    d) none of the mentioned  
   Answer: b
2. What is raw disk?

a) disk without file system

b) empty disk

c) disk lacking logical file system

d) disk having file system

Answer: a

1. The data structure used for file directory is called \_\_\_\_\_\_\_\_\_\_\_\_  
    a) mount table  
    b) hash table  
    c) file table  
    d) process table  
   Answer: b
2. In which type of allocation method each file occupy a set of contiguous block on the disk?  
    a) contiguous allocation  
    b) dynamic-storage allocation  
    c) linked allocation  
    d) indexed allocation  
   Answer: a
3. If the block of free-space list is free then bit will \_\_\_\_\_\_\_\_\_\_\_\_  
    a) 1  
    b) 0  
    c) any of 0 or 1  
    d) none of the mentioned  
   Answer: a
4. Which protocol establishes the initial logical connection between a server and a client?  
    a) transmission control protocol  
    b) user datagram protocol  
    c) mount protocol  
    d) datagram congestion control protocol  
   Answer: c
5. Data cannot be written to secondary storage unless written within a \_\_\_\_\_\_

a) file

b) swap space

c) directory

d) text format

Answer: a

1. File attributes consist of \_\_\_\_\_\_\_\_\_\_\_\_  
    a) name  
    b) type  
    c) identifier  
    d) all of the mentioned  
   Answer: d
2. The information about all files is kept in \_\_\_\_\_\_\_\_\_\_\_\_  
    a) swap space  
    b) operating system  
    c) seperate directory structure  
    d) none of the mentioned  
   Answer: c
3. A file is a/an \_\_\_\_\_\_\_ data type.

a) abstract

b) primitive

c) public

d) private

Answer: a

1. The operating system keeps a small table containing information about all open files called \_\_\_\_\_\_\_\_\_\_\_\_  
    a) system table  
    b) open-file table  
    c) file table  
    d) directory table  
   Answer: b
2. The open file table has a/an \_\_\_\_\_\_\_ associated with each file.

a) file content

b) file permission

c) open count

d) close count

Answer: c

Explanation: open count indicates the number of processes that have the file open.

1. Which of the following are the two parts of the file name?  
    a) name & identifier  
    b) identifier & type  
    c) extension & name  
    d) type & extension  
   Answer: c
2. What will happen in the single level directory?

a) All files are contained in different directories all at the same level

b) All files are contained in the same directory

c) Depends on the operating system

d) None of the mentioned

Answer: b

1. A relative path name begins at the \_\_\_\_\_\_\_\_\_\_\_\_\_

a) leaf

b) stem

c) current directory

d) root

Answer: c

1. When two users keep a subdirectory in their own directories, the structure being referred to is \_\_\_\_\_\_\_\_\_\_\_\_\_

a) tree structure

b) cyclic graph directory structure

c) two level directory structure

d) acyclic graph directory

Answer: d