Operating Systems –question bank for II mid Examinations

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

[**A.**](javascript:%20void(0)) physical address

[**B.**](javascript:%20void(0)) absolute address

[**C.**](javascript:%20void(0)) logical address

[**D.**](javascript:%20void(0)) none of the mentioned

Ans: C

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

[**A.**](javascript:%20void(0)) memory management unit

[**B.**](javascript:%20void(0)) CPU

[**C.**](javascript:%20void(0)) PCI

[**D.**](javascript:%20void(0)) none of the mentioned

Ans: A

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

[**A.**](javascript:%20void(0)) stack pointer

[**B.**](javascript:%20void(0)) page table base register

[**C.**](javascript:%20void(0)) page register

[**D.**](javascript:%20void(0)) program counter

Ans: B

1. The page table contains:

[**A.**](javascript:%20void(0)) base address of each page in physical memory

[**B.**](javascript:%20void(0)) page offset

[**C.**](javascript:%20void(0)) page size

[**D.**](javascript:%20void(0)) none of the mentioned

Ans: A

1. What is compaction?

[**A.**](javascript:%20void(0)) a technique for overcoming internal fragmentation

[**B.**](javascript:%20void(0)) a paging technique

[**C.**](javascript:%20void(0)) a technique for overcoming external fragmentation

[**D.**](javascript:%20void(0)) a technique for overcoming fatal error

Ans: C

1. Operating System maintains the page table for:

[**A.**](javascript:%20void(0)) each process

[**B.**](javascript:%20void(0)) each thread

[**C.**](javascript:%20void(0)) each instruction

[**D.**](javascript:%20void(0)) each address

Ans: A

1. In contiguous memory allocation :

[**A.**](javascript:%20void(0)) each process is contained in a single contiguous section of memory

[**B.**](javascript:%20void(0)) all processes are contained in a single contiguous section of memory

[**C.**](javascript:%20void(0)) the memory space is contiguous

[**D.**](javascript:%20void(0)) None of these

Ans: A

1. The relocation register helps in :

[**A.**](javascript:%20void(0)) providing more address space to processes

[**B.**](javascript:%20void(0)) a different address space to processes

[**C.**](javascript:%20void(0)) to protect the address spaces of processes

[**D.**](javascript:%20void(0)) None of these

Ans: C

1. When memory is divided into several fixed sized partitions, each partition may contain \_\_\_\_\_\_\_\_.

[**A.**](javascript:%20void(0)) exactly one process

[**B.**](javascript:%20void(0)) atleast one process

[**C.**](javascript:%20void(0)) multiple processes at once

[**D.**](javascript:%20void(0)) None of these

Ans: A

1. In fixed sized partition, the degree of multiprogramming is bounded by \_\_\_\_\_\_\_\_\_\_\_.

[**A.**](javascript:%20void(0)) the number of partitions

[**B.**](javascript:%20void(0)) the CPU utilization

[**C.**](javascript:%20void(0)) the memory size

[**D.**](javascript:%20void(0)) All of these

Ans: A

1. Swap space exists in:

A. primary memory

B. secondary memory

C. CPU

D. none of the mentioned

ANSWER:B

1. The first fit, best fit and worst fit are strategies to select a \_\_\_\_\_\_.

[**A.**](javascript:%20void(0)) process from a queue to put in memory

[**B.**](javascript:%20void(0)) processor to run the next process

[**C.**](javascript:%20void(0)) free hole from a set of available holes

[**D.**](javascript:%20void(0)) All of these

Ans: C

1. If the property of locality of reference is well pronounced in a program
2. the number of page faults will be more
3. the number of page faults will be less
4. the number of page faults will same
5. none of above

Ans: B

1. Belady’s anomaly occurs in
2. Optimal replacement
3. FIFO
4. LRU
5. both in FIFO and LRU

Ans: B

1. **A page fault occurs when**
2. the Deadlock happens  
   b. the Segmentation starts  
   c. the page is found in the memory  
   d. the page is not found in the memory

Ans: D

1. A solution to the problem of external fragmentation is :

[**A.**](javascript:%20void(0)) compaction

[**B.**](javascript:%20void(0)) larger memory space

[**C.**](javascript:%20void(0)) smaller memory space

[**D.**](javascript:%20void(0)) None of these

Ans: A

1. In Paging, When the memory allocated to a process is slightly larger than the process, then \_\_\_\_\_\_\_\_\_\_\_\_\_ (internal ) fragmentation occurs.
2. 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.**](javascript:%20void(0)) the cost incurred

[**B.**](javascript:%20void(0)) the memory used

[**C.**](javascript:%20void(0)) the CPU used

[**D.**](javascript:%20void(0)) All of these

Ans: A

1. In internal fragmentation, memory is internal to a partition and :

[**A.**](javascript:%20void(0)) is being used

[**B.**](javascript:%20void(0)) is not being used

[**C.**](javascript:%20void(0)) is always used

[**D.**](javascript:%20void(0)) None of these

Ans: B

1. External fragmentation exists when :

[**A.**](javascript:%20void(0)) enough total memory exists to satisfy a request but it is not contiguous

[**B.**](javascript:%20void(0)) the total memory is insufficient to satisfy a request

[**C.**](javascript:%20void(0)) a request cannot be satisfied even when the total memory is free

Ans: A

1. \_\_\_\_\_ is the concept in which a process is copied into main memory from the secondary memory according to the requirement.

[**A.**](javascript:%20void(0)) Paging

[**B.**](javascript:%20void(0)) Demand paging

[**C.**](javascript:%20void(0)) Segmentation

[**D.**](javascript:%20void(0)) Swapping

Ans: B

1. Swap space exists in:

[**A.**](javascript:%20void(0)) primary memory

[**B.**](javascript:%20void(0)) secondary memory

[**C.**](javascript:%20void(0)) CPU

[**D.**](javascript:%20void(0)) none of the mentioned

Ans: B

1. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then?

[**A.**](javascript:%20void(0)) segmentation fault occurs

[**B.**](javascript:%20void(0)) fatal error occurs

[**C.**](javascript:%20void(0)) page fault occurs

[**D.**](javascript:%20void(0)) no error occurs

Ans: C

1. Effective access time is directly proportional to:

[**A.**](javascript:%20void(0)) page-fault rate

[**B.**](javascript:%20void(0)) hit ratio

[**C.**](javascript:%20void(0)) memory access time

[**D.**](javascript:%20void(0)) none of the mentioned

Ans: A

1. In FIFO page replacement algorithm, when a page must be replaced:

[**A.**](javascript:%20void(0)) oldest page is chosen

[**B.**](javascript:%20void(0)) newest page is chosen

[**C.**](javascript:%20void(0)) random page is chosen

[**D.**](javascript:%20void(0)) none of the mentioned

Ans: A

1. Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced?

[**A.**](javascript:%20void(0)) first in first out algorithm

[**B.**](javascript:%20void(0)) additional reference bit algorithm

[**C.**](javascript:%20void(0)) least recently used algorithm

[**D.**](javascript:%20void(0)) counting based page replacement algorithm

Ans: C

1. A process is thrashing if:

[**A.**](javascript:%20void(0)) it is spending more time paging than executing

[**B.**](javascript:%20void(0)) it is spending less time paging than executing

[**C.**](javascript:%20void(0)) page fault occurs

[**D.**](javascript:%20void(0)) swapping can not take place

Ans: A

1. Working set model for page replacement is based on the assumption of:

[**A.**](javascript:%20void(0)) modularity

[**B.**](javascript:%20void(0)) locality

[**C.**](javascript:%20void(0)) globalization

[**D.**](javascript:%20void(0)) random access

Ans: B

|  |
| --- |
| 1. In which of the storage placement strategies a program is placed in the largest available hole in the main memory? |
| |  |  | | --- | --- | | [**A.**](javascript:%20void%200;) | best fit | | [**B.**](javascript:%20void%200;) | first fit | | [**C.**](javascript:%20void%200;) | worst fit | | [**D.**](javascript:%20void%200;) | Buddy | |

Ans: C

|  |
| --- |
| 1. The total time to prepare a disk drive mechanism for a block of data to be read from it is |
| |  |  | | --- | --- | | [**A.**](javascript:%20void%200;) | latency | | [**B.**](javascript:%20void%200;) | latency plus transmission time | | [**C.**](javascript:%20void%200;) | latency plus seek time | | [**D.**](javascript:%20void%200;) | latency plus seek time plus transmission time | |

Ans: C

1. \_\_\_\_\_\_\_\_\_\_\_ begins at the root and follows a path down to the specified file.
2. Relative path name
3. Absolute path name
4. Standalone name
5. All of the above

Ans: B

1. Which directory implementation is used in most Operating System?
2. Single level directory structure
3. Two level directory structure
4. Tree directory structure
5. Acyclic directory structure

Ans: C

1. Files can have ?
2. Read Access
3. Write Access
4. Copy Access
5. All of above

Ans: D

1. In \_\_\_\_\_\_\_\_\_\_\_( general graph) directory structure, cycles are allowed within a directory structure where multiple directories can be derived from more than one parent directory.
2. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(Contiguous )** file allocation method suffers with External fragmentation
3. The directory can be viewed as a \_\_\_\_\_\_\_\_\_ that translates file names into their directory entries.
4. symbol table
5. partition
6. swap space
7. cache

Ans: A

1. In the single level directory :
2. All files are contained in different directories all at the same level
3. All files are contained in the same directory
4. Depends on the operating system
5. None of the mentioned

Ans: B

1. In the two level directory structure :
2. each user has his/her own user file directory
3. the system doesn’t its own master file directory
4. all of the mentioned
5. none of the mentioned

Ans: A

1. The disadvantage of the two level directory structure is that :
2. it does not solve the name collision problem
3. it solves the name collision problem
4. it does not isolate users from one another
5. it isolates users from one another

Ans: B

1. Path names can be of two types :
2. absolute & relative
3. local & global
4. global & relative
5. relative & local

Ans: A

1. An absolute path name begins at the :
2. leaf
3. stem
4. current directory
5. root

Ans: D

1. A relative path name begins at the :
2. leaf
3. stem
4. current directory
5. root

Ans: C

1. A tree structure \_\_\_\_\_\_ the sharing of files and directories.
2. allows
3. may restrict
4. restricts
5. none of the mentioned

Ans: C

1. In contiguous allocation :
2. each file must occupy a set of contiguous blocks on the disk
3. each file is a linked list of disk blocks
4. all the pointers to scattered blocks are placed together in one location
5. none of the mentioned

Ans: A

1. In linked allocation :
2. each file must occupy a set of contiguous blocks on the disk
3. each file is a linked list of disk blocks
4. all the pointers to scattered blocks are placed together in one location
5. none of the mentioned

Ans: B

1. In indexed allocation :
2. each file must occupy a set of contiguous blocks on the disk
3. each file is a linked list of disk blocks
4. all the pointers to scattered blocks are placed together in one location
5. none of the mentioned

Ans: C

1. One difficulty of contiguous allocation is :
2. finding space for a new file
3. inefficient
4. costly
5. time taking

Ans: A

1. For each file their exists a \_\_\_\_\_\_\_\_\_\_\_ that contains information about the file, including ownership, permissions and location of the file contents.
2. metadata
3. file control block
4. process control block
5. all of the mentioned

Ans: B

1. There is no \_\_\_\_\_\_\_\_\_\_ with linked allocation.
2. internal fragmentation
3. external fragmentation
4. starvation
5. all of the mentioned

Ans: B

1. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(**file-control block) (FCB)** contains information about the file, including ownership, permissions, and location of the file contents
2. FAT stands for :
3. File Attribute Transport
4. File Allocation Table
5. Fork At Time
6. None of the mentioned

Ans: B

1. Indexed allocation \_\_\_\_\_\_\_\_\_ direct access.
2. supports
3. does not support
4. is not related to
5. none of the mentioned

Ans: A

1. Consider a disk where blocks 2,3,4,5,8,9,10,11,12,13,17,18,25,26 and 27 are free and the rest of the blocks are allocated. Then the free space bit map would be :
2. 10000110000001110011111100011111…
3. 110000110000001110011111100011111…
4. 01111001111110001100000011100000…
5. 001111001111110001100000011100000…

Ans: D

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(ORDINARY)** pipes require a parent-child relationship between the communicating processes.
2. By using the specific system call, we can
3. open the file
4. read the file
5. write into the file
6. all of the mentioned

Ans: D

1. File type can be represented by
2. file name
3. file extension
4. file identifier
5. none of the mentioned

Ans: B

1. File attributes consist of :
2. name
3. type
4. identifier
5. all of the mentioned

Ans: D

1. The information about all files is kept in :
2. swap space
3. operating system
4. separate directory structure
5. none of the mentioned

Ans: C

1. Which of the following filename extension suggests that the file is a backup copy of another file?
2. TXT
3. COM
4. BAS
5. BAK

Ans: D

1. Which system call returns the process identifier of a terminated child?
2. wait
3. exit
4. fork
5. get

Ans: 1

61. The Value returned by the successful creation of a file by using creat() system call A) 0 B) 1 C) 2 D) 3

Ans: D

62. lseek() system call is used to [ ]

A) Close the file B) Open the file

C) Change the location of the read/write pointer D) know properties

1. In the non blocking send :

[**A.**](javascript:%20void(0)) the sending process keeps sending until the message is received

[**B.**](javascript:%20void(0)) the sending process sends the message and resumes operation

[**C.**](javascript:%20void(0)) the sending process keeps sending until it receives a message

[**D.**](javascript:%20void(0)) None of the mentioned

Ans: B

1. Bounded capacity and Unbounded capacity queues are referred to as :

[**A.**](javascript:%20void(0)) Programmed buffering

[**B.**](javascript:%20void(0)) Automatic buffering

[**C.**](javascript:%20void(0)) User defined buffering

[**D.**](javascript:%20void(0)) No buffering

Ans: B

1. In the Zero capacity queue:

[**A.**](javascript:%20void(0)) the queue can store at least one message

[**B.**](javascript:%20void(0)) the sender blocks until the receiver receives the message

[**C.**](javascript:%20void(0)) the sender keeps sending and the messages dont wait in the queue

[**D.**](javascript:%20void(0)) None of the mentioned

Ans: B

1. The link between two processes P and Q to send and receive messages is called:

[**A.**](javascript:%20void(0)) communication link

[**B.**](javascript:%20void(0)) message-passing link

[**C.**](javascript:%20void(0)) synchronization link

[**D.**](javascript:%20void(0)) All of the mentioned

Ans: A

1. Each process in a system has a segment of code, called --------------, in which the process may be changing common variables, updating a table, writing a file.(**Critical section**, semaphore, race condition, segment table).
2. A parent process can use\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_( mkfifo) to create a named pipe.
3. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Relative) path names defines a path from the current directory in tree structure directory.
4. If \_\_\_\_\_\_\_\_ (cycles) are allowed in Tree structure it is called General graph directory?
5. if the required page is not available in the main memory, it may leads to \_\_\_\_\_\_\_\_(page fault).
6. Repetition of page fault is called \_\_\_\_\_\_\_\_\_\_(thrashing).
7. A semaphore is A) An Integer variable B) part of Hardware C) A character D) System call

74 Which pipes are referred to as FIFOs in UNIX systems?

A) Anonymous B) Ordinary C) Named D) Unnamed

75. What is interprocess communication?

[**A.**](javascript:%20void(0)) communication within the process

[**B.**](javascript:%20void(0)) Communication between two process

[**C.**](javascript:%20void(0)) communication between two threads of same process

[**D.**](javascript:%20void(0)) None of the mentioned

Ans.B

76. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pipes continue to exist after communicating processes have finished**.(Named)**