With paging there is no _____ fragmentation.

Select one:

either type of

internal

none of the mentioned

external

Transient operating system code is code that _____

Select one:

stays in the memory always

comes and goes as needed

is not easily accessible

never enters the memory space

The operating system and the other processes are protected from being modified by an already running process because _____

Select one:

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

they are in different memory spaces

they have a protection algorithm

they are in different logical addresses

If the size of logical address space is 2 to the power of m, and a page size is 2 to the power of n addressing units, then the high order _____ bits of a logical address designate the page number, and the ____ low order bits designate the page offset.

Select one:

m – n, n

m, n

n, m

m – n, m

When memory is divided into several fixed sized partitions, each partition may contain _____

Select one:

at least one process

none of the mentioned

multiple processes at once

exactly one process

In contiguous memory allocation _____

Select one:

all processes are contained in a single contiguous section of memory

the memory space is contiguous

each process is contained in a single contiguous section of memory

none of the mentioned

What is Dynamic loading?

Select one:

loading multiple routines randomly

loading multiple routines dynamically

none of the mentioned

loading a routine only when it is called

Smaller page tables are implemented as a set of _____

Select one:

stacks

queues

registers

counters

For larger page tables, they are kept in main memory and a _____ points to the page table.

Select one:

page table register pointer

page table base pointer

page table base register

page table base

The offset 'd' of the logical address must be _____

Select one:

between 0 and the segment number

greater than the segment number

between 0 and segment limit

greater than segment limit

If a higher priority process arrives and wants service, the memory manager can swap out the lower priority process to execute the higher priority process. When the higher priority process finishes, the lower priority process is swapped back in and continues execution. This variant of swapping is sometimes called?

Select one:

pull out, push in

priority swapping

roll out, roll in

none of the mentioned

If there are 32 segments, each of size 1Kb, then the logical address should have _____

Select one:

13 bits

14 bits

16 bits

15 bits

Each entry in a segment table has a _____

Select one:

none of the mentioned

segment value

segment base

segment peak

Time taken in memory access through PTBR is _____

Select one:

extended by a factor of 3

extended by a factor of 2

slowed by a factor of 2

slowed by a factor of 3

In fixed size partition, the degree of multiprogramming is bounded by _____

Select one:

the number of partitions

all of the mentioned

the CPU utilization

the memory size

What is Address Binding?

Select one:

going to an address in memory

locating an address with the help of another address

binding two addresses together to form a new address in a different memory space

a mapping from one address space to another

Paging increases the _____ time.

Select one:

waiting

execution

all of the mentioned

context – switch

The _____ must design and program the overlay structure.

Select one:

system designer

programmer

system architect

none of the mentioned

When the entries in the segment tables of two different processes point to the same physical location _____

Select one:

all of the mentioned

segments are shared

the processes get blocked

the segments are invalid

The operating system maintains a _____ table that keeps track of how many frames have been allocated, how many are there, and how many are available.

Select one:

memory

frame

page

mapping

The first fit, best fit and worst fit are strategies to select a _____

Select one:

all of the mentioned

process from a queue to put in memory

free hole from a set of available holes

processor to run the next process

What location is the operating system?

Select one:

in the low memory

either low or high memory (depending on the location of interrupt vector)

none of the mentioned

in the high memory

In paging the user provides only _____ which is partitioned by the hardware into _____ and _____

Select one:

one address, page number, offset

none of the mentioned

one offset, page number, address

page number, offset, address

The segment limit contains the _____

Select one:

starting logical address of the process

segment length

starting physical address of the segment in memory

none of the mentioned

Logical memory is broken into blocks of the same size called _____

Select one:

none of the mentioned

pages

backing store

frames

A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because _____

Select one:

it is required by the translation lookaside buffer

it helps to reduce the size of page table needed to implement the virtual address space of a process

it reduces the memory access time to read or write a memory location

it helps to reduce the number of page faults in page replacement algorithms

The _____ swaps processes in and out of the memory.

Select one:

Memory manager

CPU manager

User

CPU

The relocation register helps in _____

Select one:

providing more address space to processes

none of the mentioned

a different address space to processes

to protect the address spaces of processes

The primary memory can hold _____

Select one:

all of the mentioned

cpu

user processes

operating system

Using transient code, _____ the size of the operating system during program execution.

Select one:

decreases

increases

changes

maintains

If the offset is legal _____

Select one:

it is subtracted from the segment base to produce the physical memory address

none of the mentioned

it is used as a physical memory address itself

it is added to the segment base to produce the physical memory address

The idea of overlays is to _____

Select one:

all of the mentioned

enable a process to be larger than the amount of memory allocated to it

data that are needed at any given time

keep in memory only those instructions

The segment base contains the _____

Select one:

segment length

none of the mentioned

starting logical address of the process

starting physical address of the segment in memory

For every process there is a _____

Select one:

pointer to page table

copy of page table

all of the mentioned

page table

Physical memory is broken into fixed-sized blocks called _____

Select one:

backing store

frames

pages

none of the mentioned

If the process can be moved during its execution from one memory segment to another, then binding must be _____

Select one:

preponed to load time

preponed to compile time

none of the mentioned

delayed until run time

The page table registers should be built with _____

Select one:

a large memory space

none of the mentioned

very high speed logic

very low speed logic

In a system that does not support swapping _____

Select one:

binding of symbolic addresses to physical addresses normally takes place during execution

the compiler normally binds symbolic addresses (variables) to relocatable addresses

the compiler normally binds symbolic addresses to physical addresses

the loader binds relocatable addresses to physical addresses

The _____ is used as an index into the page table.

Select one:

page offset

frame bit

page number

frame offset

Consider a computer with 8 Mbytes of main memory and a 128K cache. The cache block size is 4 K. It uses a direct mapping scheme for cache management. How many different main memory blocks can map onto a given physical cache block?

Select one:

2048

8

256

64

With relocation and limit registers, each logical address must be _____ the limit register.

Select one:

greater than

equal to

less than

none of the mentioned

Every address generated by the CPU is divided into two parts. They are _____

Select one:

frame bit & page number

frame offset & page offset

page number & page offset

page offset & frame bit

The protection bit is 0/1 based on _____

Select one:

write only

none of the mentioned

read – write

read only

Binding of instructions and data to memory addresses can be done at _____

Select one:

Compile time

Load time

Execution time

All of the mentioned

In segmentation, each address is specified by _____

Select one:

a segment number & offset

a key & value

a value & segment number

an offset & value

The _____ table contains the base address of each page in physical memory.

Select one:

page

memory

process

frame

If there are 32 segments, each of size 1Kb, then the logical address should have _____

Select one:

16 bits

13 bits

15 bits

14 bits

If binding is done at assembly or load time, then the process _____ be moved to different locations after being swapped out and in again.

Select one:

can

can never

may

must

Which of the following is TRUE?

Select one:

When overlays are used, the size of a process is not limited to the size of the physical memory

Overlays are used to increase the logical address space

Overlays are used whenever the physical address space is smaller than the logical address space

Overlays are used to increase the size of physical memory

The size of a page is typically _____

Select one:

varied

power of 4

none of the mentioned

power of 2

What is the advantage of dynamic loading?

Select one:

An unused routine is never loaded

CPU utilization increases

All of the mentioned

A used routine is used multiple times