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Subject : operating system

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Q3:-

Ans:

The most subtle component of an operating system that is designed to ensure fair, orderly and efficient use of memory is the memory management system. The tasks of memory management includes keeping track of used and free memory space as well as when, where and how much memory to allocate and deallocate.

It is also responsible for swapping processes in and out of main memory.

The purpose of a memory management system is to ensure fair and efficient use of a memory.

Q. 4

Ans:-

Symmetric:

is a process to change form of any message in order to protect it from reading by anyone. In symmetric key encryption the message is encrypted by using key and the same key is used to decrypt.

for example:

it only requires a single key for both encryption and decryption.

Asymmetric key encryption:

Asymmetric key encryption is based on public and private key encryption technique. it uses two different key to encrypt and decrypt.

for example:

it requires two key one to encrypt and other one to decrypt.

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Q 6:-

① first fit.

allocate into the first available gap found of adequate size starting from the beginning of memory scan memory region list from start. for first fit must always skip over potentially many regions at the effort of list.

② Next fit:-

Breaks up large blocks at the end of memory.

③ Best fit:-

Picks the shortest free region in the entire list leaves small in the entire list very slower due to searching of entire list.

④ worst fit.

finds the worst fit in the entire list slower as it searches entire list. fragmentation still an issue.

OS:

internal fragmentation

① fixed-sized memory.

block square measure appointed to process to internal. when fragmentation happen

② the method of process is larger than the memory.

the solution of internal.

③ fragmentation is best-fit block

④ memory is divided into fixed size partition.

⑤ Allocated and required space. or memory is call internal fragmentation.

external fragmentation

① variable sized memory block square measure appoint to memory

② external fragmentation happen when the method or process is remove

③ solution of external fragmentation. Compact and Segmentation

④ fragmentation occur when memory is divided into variable size of process.

⑤ The unused spaces formed between non contiguous memory fragments are too small to serve a new process is called external

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Q2:-

Dynamic loading:-

System library or other routine is loaded during run time and it is not support by OS.

Dynamic loading is the process of loading the depends library or loading at some time at run out load time the time which the main programme executable is loading all dependences at load time together with the main program.

for example:-

support of both techniques the loading process complete when the library has been successfully loaded into main memory.

Q3) Dynamic linking:-

refers to the linking that is done during loading or run time and not when the exe is created.

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In case of dynamic linking the linker while creating the exe does minimal work for the dynamic linker to work it actually has to load the libraries to Hence it also called linking loaders.

for examples -

module is loaded into memory and a link base the calling module is established the sub which is the piece of the code that is linked in linking time program.

Q1:-

Ans: Yes it is necessary to check that either safe states exists or not in dead lock prevention because when we disallow dead lock by setting safe states it means process completion is always guaranteed.

7:-

## User Level Threading:

is the thread which process which the OS must know about. In a user level thread approach the cost of context switch between threads can be minimized even since the OS itself does not thread to be involved no extra call or required. A user level is represented as it self does not counter.

situation over either copper power series recloser and regular by pass switch and three phase overhead disconnectors and isolation.