

Name :- Danial Rahman
 ID# :- 15433
 Degree :- BSSB
 Subject :- Operating System
 Teacher :- David Khan
 Semester :- 3rd

Q no 1 :- Hardware Mechanism that enable a device to notify Cpu is called on

Ans :- Interrupt

Q no 2 :-

Ans :- Memory related information

Q no 3 :-

Ans :- Wait

Q no 4 :-

Ans :- Asymmetric

Q no 5 :-

Ans :- Ps

Q no 6 :-

Ans :- Fg

Q no 7 :-

Ans :- Jobs

Q no 8 :-

Ans :- C CTRL-C T

Q no 9:-

Ans :- All of these

Q no 10:-

Ans :- ~~Stability~~ / Efficiency

Q no 11:-

Ans :- 1 lib

Q no 12:-

Ans :- Long Term

Q no 13:-

Ans :- Do NOT

Q no 14:-

Ans :- Semaphore

Q no 15:-

Ans :- Spin-locks

Q no 16:-

Ans :- False

Q no 17:-

Ans :- True

Q no 18:-

Ans :- Bounded-waiting

Q no 19:-

Ans :- Firmware Based Solution

Q no 20:-

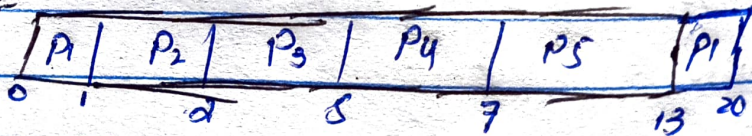
Ans :- Medium Term Scheduler

Qno 21:- write a formula/procedure for calculating the waiting time in a preemptive Shortest job first Scheduling?

Ans:- Preemptive Scheduling is sometimes called Shortest remaining time first Scheduling we illustrate the working of a SJF Algorithm by using the System State.

Process	Arrival time	Burst time	completion	T-A-T	Busy - (T-A-T) waiting time
P ₁	0	8	20	20	12
P ₂	1	1	2	1	0
P ₃	2	3	5	3	0
P ₄	3	2	7	4	2
P ₅	4	6	13	9	3

GANT:



$$\Rightarrow \text{Average T-A-T} = \frac{20+0+0+2+3}{5}$$

$$\Rightarrow \frac{27}{5}$$

\Rightarrow Average waiting time

$$= \frac{12+0+0+2+3}{5}$$

$$\frac{17}{5}$$

Question :- if a process exits and there are still threads of that process running will they continue to run?

Ans :-

No thread of the process will no longer run once the process is terminated because all threads in a process share the same address space all threads ~~in a~~ process are suspended at the same time. Similarly a termination of a process terminate all threads within that process.

Q :- -23:-

Ans :- Resource sharing have both advantage of threads and disadvantage of thread

Advantages :-

Responsiveness :- multithreading an interactive application may allow a program to continue running even if part of it is blocked or is performing a lengthy operation there by increasing responsiveness to the user.

Resource sharing :-

By default threads share the memory and the resources of the process to which they belong. Code sharing allow an application to have a several different threads of activity all within the same address.

Disadvantages

① Resource Sharing :-

where as resource sharing is one of the major advantages of threads. it is also a disadvantage because proper synchronization is needed b/w thread for accessing the shared resources (e.g. data, file)

② Difficult programming model :-

it is difficult to write, debug and maintain multithreaded programs for an average user. This is particularly true when it comes to writing code for synchronize access to shared resources.