

Date: \_\_\_\_\_

Page # 1

NAME: Aqib Bangash

ID#: 15415

Degree: BSSE

Subject: Operating System

Teacher: David Khan

Semester: 3rd.

Q No 4: Hard mechanism that enable a device to notify CPS is called.

Ans: Interrupt

Q?

Ans: Memory related information.

Q?

Ans: Wait

Q:

Asymmetric

Q5:

Ans: PS

Q6:

eg

Q7:

Ans: Jobs

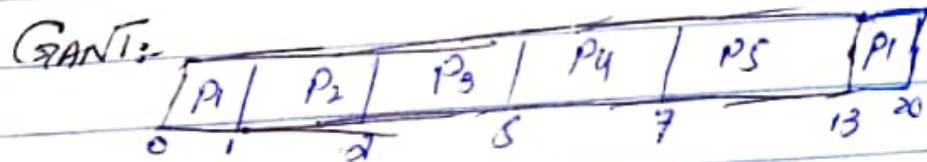
Q8

< C + 6 - C 7

Q no 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 algorithms by using the System State.

Process	Arrival time	Burst time	Completion	T-A-T	Busy-(FAT) waiting time
P <sub>1</sub>	0	8	20	20	12
P <sub>2</sub>	1	1	2	1	0
P <sub>3</sub>	2	3	5	3	0
P <sub>4</sub>	3	2	7	4	2
P <sub>5</sub>	4	6	13	9	3



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

$$\Rightarrow \frac{37}{5}$$

$\Rightarrow$  Average waiting time

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

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

## 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 resource (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 synchronized access to shared resource.

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~~ ~~process~~ are suspended at the same time. Similarly a termination of a process terminates all threads within that process.

Q :- -23 :-

Ans :- Resource sharing have both advantages of threads and disadvantages of threads

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 several different threads of activity all with in the same address.

• Qno 9:-

Ans :- All of these

• Qno 10:-

Ans :- Usability

Qno 11:-

Ans :- 1 kb

Qno 12:-

Ans :- Long Term

• Qno 13:-

Ans :- Do NOT

• Qno 14:-

Ans :- Semaphore

Qno 15:-

Ans :- Spin-Locks

Qno 16:-

Ans :- False

Qno 17:-

Ans :- True

Qno 18:-

Ans :- Bounded waiting

Qno 19:-

Ans :- Firmware Based Solution

• Qno 20:-

Ans :- Medium Term Scheduler