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→ Semsters:- 6th -

→ Subject :- Operating System.

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Q1 Ans
= Interrupt.

Q2 Ans.
= memory related information.

Q3 Ans →
= wait

Q4 Ans →
= Asymmetric

Q5 Ans
= PS

Q6 Ans →
= lg

Q7 Ans
= jobs

Q8 Ans
= <ctrl-C>

Q9 Ans
= All of these

Q10 Ans
= usability.

Q11 Ans.
= tlib

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Q12 = Ans. long term

Q13 = Ans do not.

Q14 = Ans Semaphore

Q15 = Ans spinlock

Q16 = Ans False

Q17 = Ans Title

Q18 = Ans: Bounded
Waiting.

Q19 = Ans. Firmware based
solution

Q20 = Ans median term
schedulability.

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Section (B)

Q211) Write the formula procedure for SJF scheduling.

Ans:- Preemptive SJF scheduling is sometimes called shortest remaining-time-first scheduling. We illustrate the working of the SJF algorithm by using the system state.

Process	Arrived time	Burst time	Completion time	T-AT	Waiting time (Burst time)
P1	0	8	20	20	8-20 = -12
P2	1	1	2	2	1-1 = 0
P3	2	3	5	5	0
P4	3	2	7	7	2
P5	4	6	13	13	3

CANT	P1	P2	P3	P4	P5	P1	
	0	1	2	5	5	13	20

$$\text{Average T-A-T} = \frac{20+1+3+4+9}{5}$$

$$= \frac{37}{5}$$

$$\text{Average waiting time} = \frac{12+0+0+2+3}{5}$$

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

SA

Q22 If a process exists and
↳ there are --- Run!

Ans. No, threads of the process
↳ will no longer run once the
process is terminated. Because all
threads in a ~~address~~ process
share the same address
space, all threads

the same time similarly a ^{suspended} termination
of a process terminates all threads
within that process.

Q23 considering the resource sharing
↳ feature ---
Any Resource sharing have both
↳ advantages of threads and
disadvantages of threads.

↳ "Advantages"

↳ Multithreading an
interactive application may allow a
program to continue running even if
part of its blocked or is performing
lengthy operation thread increasing
responsiveness to the users.

↳ "Resource sharing"

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

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Disadvantages-

Some of the main disadvantages of threads are,

Resource Sharing-

Where as resource sharing is one of the major advantage of threads it is also a disadvantage because proper synchronization is needed between threads for accessing the shared resources e.g. data and file.

Difficult programming model:

It is difficult to write, debug, and maintain multi-threads programmes on average users. This is particularly true when it comes to writing code for synchronized access to shared resources.