

Sri Lanka Institute of Information Technology

Question 4

Not yet answered Marked out of

P Flag question

Given the following set of processes with their arrival times and burst times:

+

Process	Burst Time	Priority
A	9	S
В	4	3
C	5	
D	7	2
E	13	

Calculate the average turnaround time for Priority Scheduling algorithm.

- O a. 16.0
- O b. 16.8
- O c. 16.2
- O d. 15.8
- e. 16.4

Question 23

Not yet answered

Marked out of 1.00

P Flag question

Consider the following four processes and their arrival and burst times.

Process	Arrival Time	Burst Time
A	0	8
В		3
C	5	
D	8	2

Compute the average waiting time

- O a. 2.5
- O b. 2
- O C. 3.5
- O d. 3
- O e.4

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Consider the following four processes and their arrival and burst times.

Process	Arrival Time	T 0 00
A	0	Burst Time
В		3
D	5	
D	8	1

B

Compute the average turnaround time.

Select one:

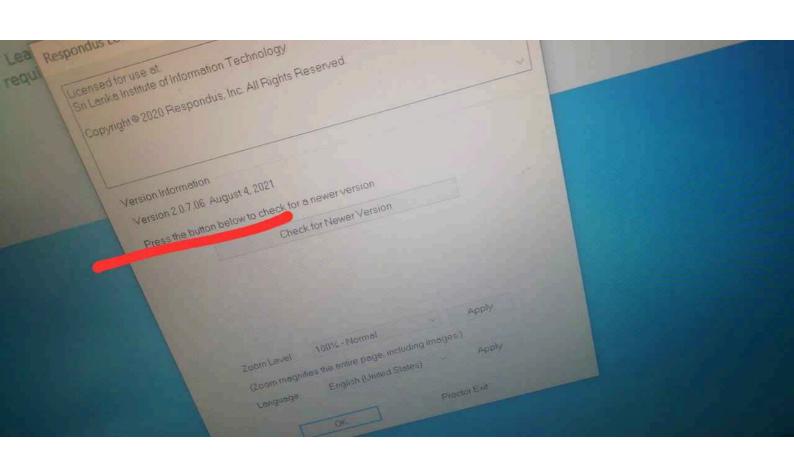
O a.8

O b.6

O . c, 6,5

O d. 7.5

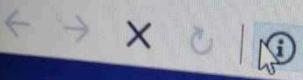
O e.7



Moodle









Dashboard

Examinations

Lockdown Bro

Uses the lockdown browser.

This quiz has been configured so that

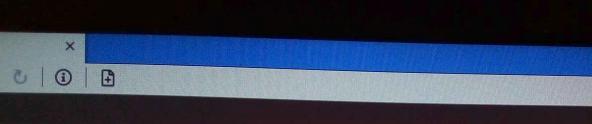
This quiz ope This quiz will che

Summary of your previous attempts

Review

Respondus LockDown Browser - Information SIT Atte Licensed for use at: Sri Lanka Institute of Information Technology t Sui Copyright @ 2020 Respondus, Inc. All Rights Reserved. in Su Tim Version Information Version 2.0.7.06 August 4, 2021 Press the button below to check for a newer version Check for Newer Version more Zoom Level: 100% - Normal Apply (Zoom magnifies the entire page, including images.) Language: English (United States) Apply OK. Proctor Exit

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                                                                                Termin:
    P2
                        3
                                            10
    P3
              5
                        1
                                 6
                                            7
    P4
              8
   Average Wait Time = 4.25
                                 Average Turnaround Time = 7.75
   0 -> P1 -> 8 -> P2 -> 11 -> P3 -> 12 -> P4 -> 14
   SHORTEST JOB FIRST
ads/(| KEY | ARRIVAL | BURST | WAIT | TURNAROUND |
                         8
                                 0
     P2
                         3
                                10
                                           13
     P3
               5
                         1
                                 3
                                            4
     P4
               8
                                            3
    Average Wait Time = 3.5
                                Average Turnaround Time = 7.0
    0 -> P1 -> 8 -> P3 -> 9 -> P4 -> 11 -> P2 -> 14
    SHORTEST REMANING TIME FIRST
     | KEY | ARRIVAL | BURST | WAIT | TURNAROUND |
       P1
                0
                         8
                                 1
       P2
                         3
                                 10
                                           13
       P3
                5
                         1
                                 2
                                            3
       P4
                         2
                                 1
                                            3
     Average Wait Time = 3.5
                                Average Turnaround Time = 7.0
     0 -> P1 -> 7 -> P3 -> 8 -> P1 -> 9 -> P4 -> 11 -> P2 -> 14
     ROUND ROBIN QT=3
     | KEY | ARRIVAL | BURST | WAIT | TURNAROUND |
        P1
                                 4
                                           12
        P2
                          3
                                  2
                                           5
aning
        P3
                          1
                                           5
QT={} Average Wait Time = 3.5
                                Average Turnaround Time = 7.0
      0 -> P1 -> 3 -> P2 -> 6 -> P1 -> 9 -> P3 -> 10 -> P1 -> 12 -> P4 -> 14
       -/Downloads/CPU-Scheduling-Calculation-master via & v2.7.18
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Consider the following statements regarding operating system:

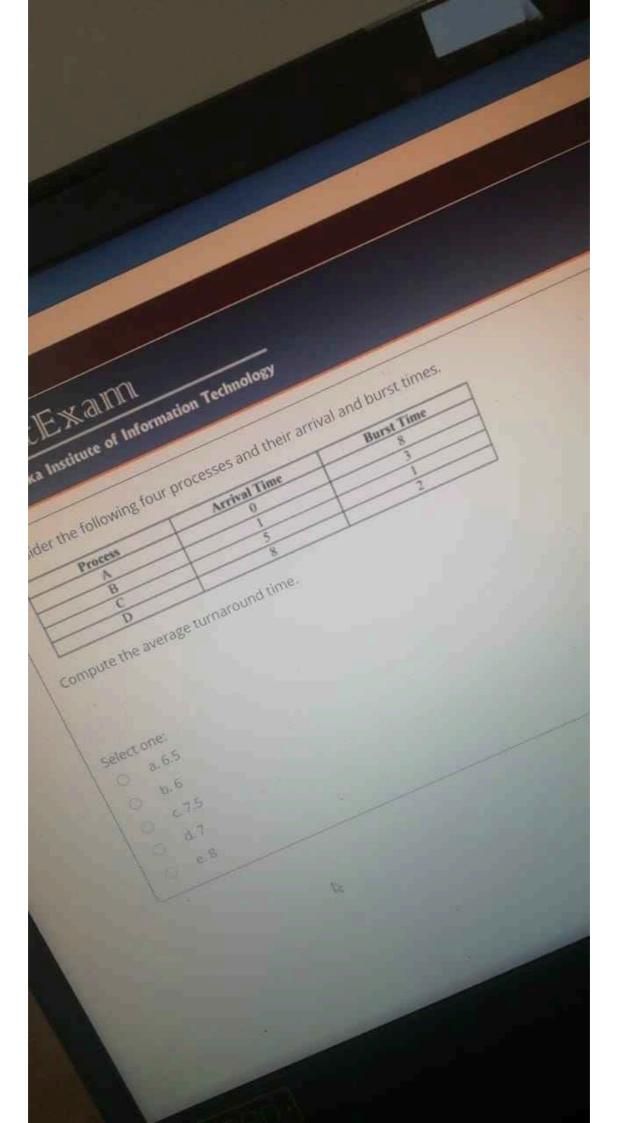
A. Most of the system calls are implemented using the assembly language and C language.

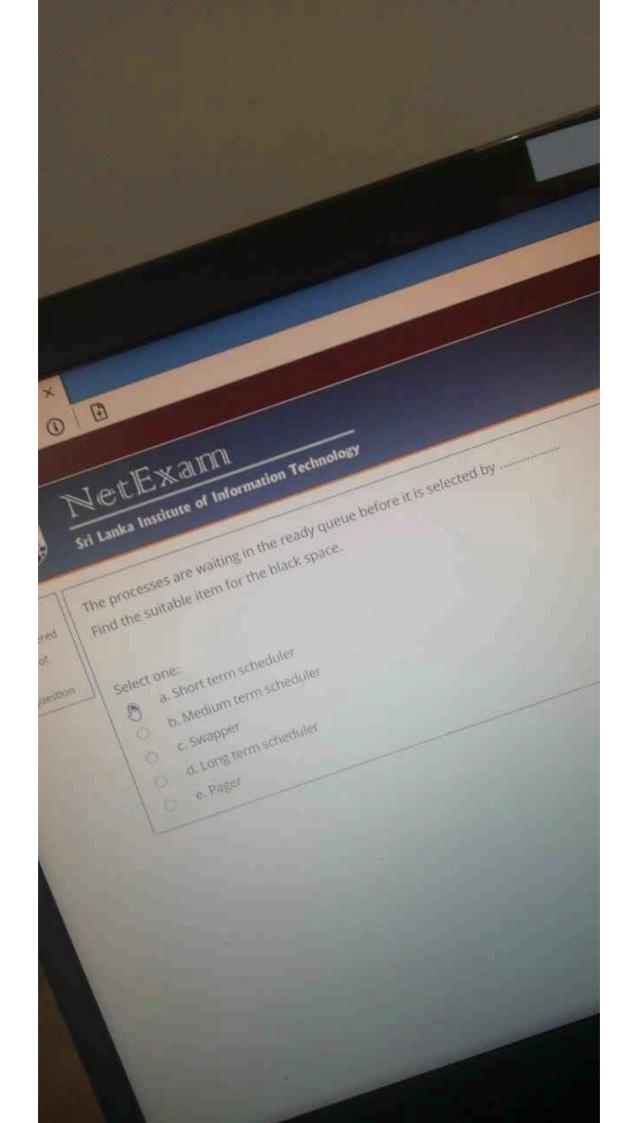
B

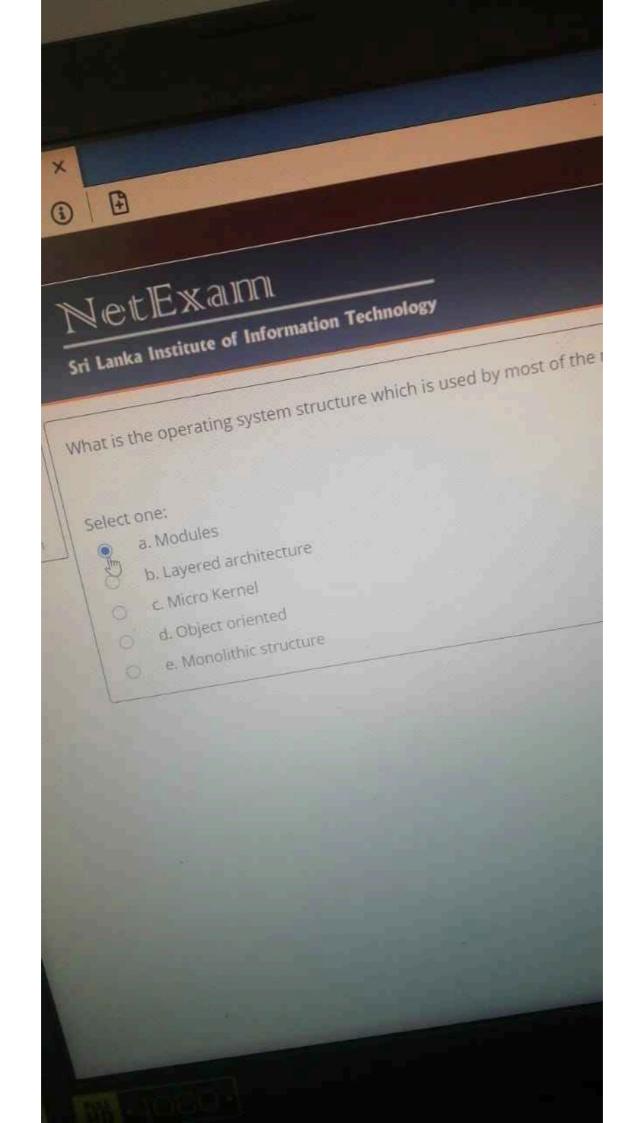
- B. Current operating systems are based on the modules concept
- C.Modern operating systems are interrupt driven
- D. Modern operating systems are always real time

Which of the following is correct:

- a. Only A. and B. are correct.
- b. Only A. B and C. are correct.
- O c. Only A. and C. are correct.
- d. All are correct
- e. None of the above

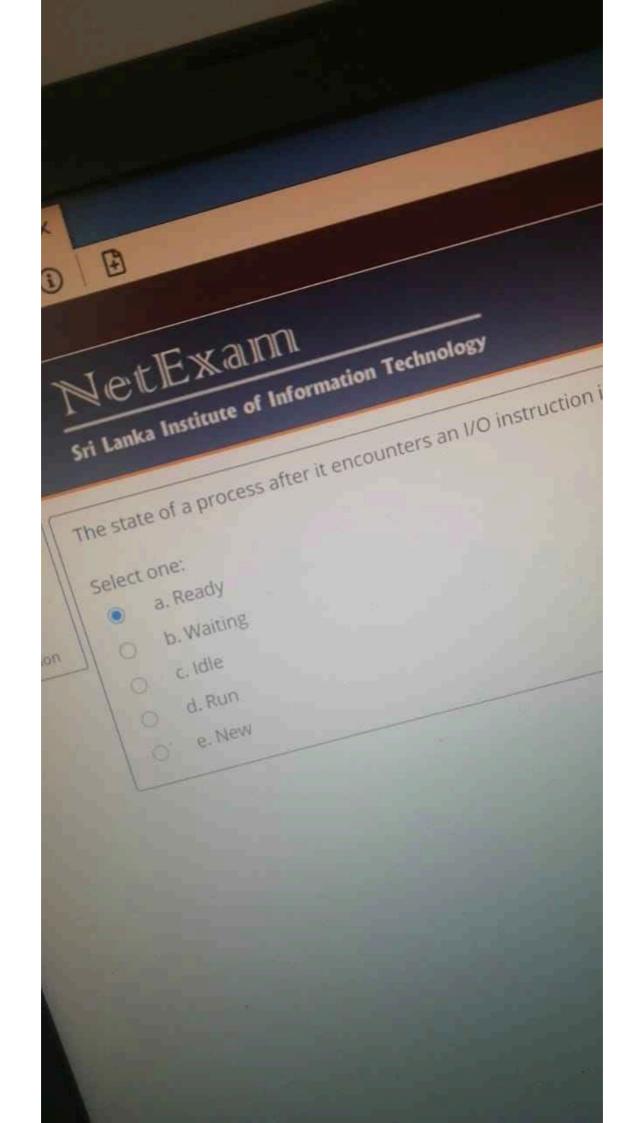


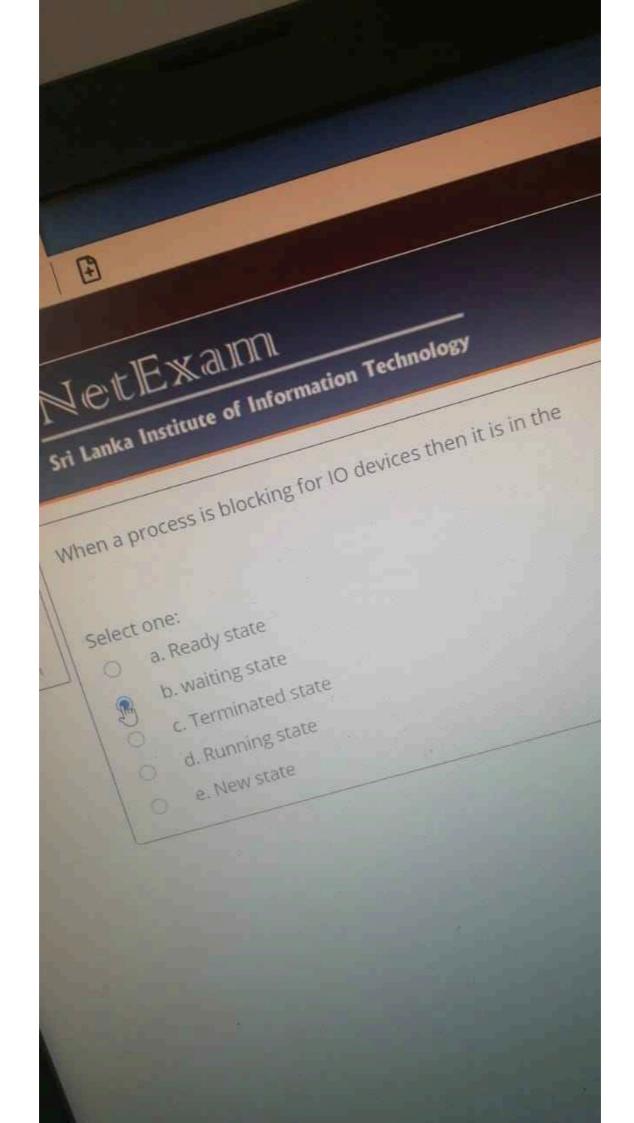


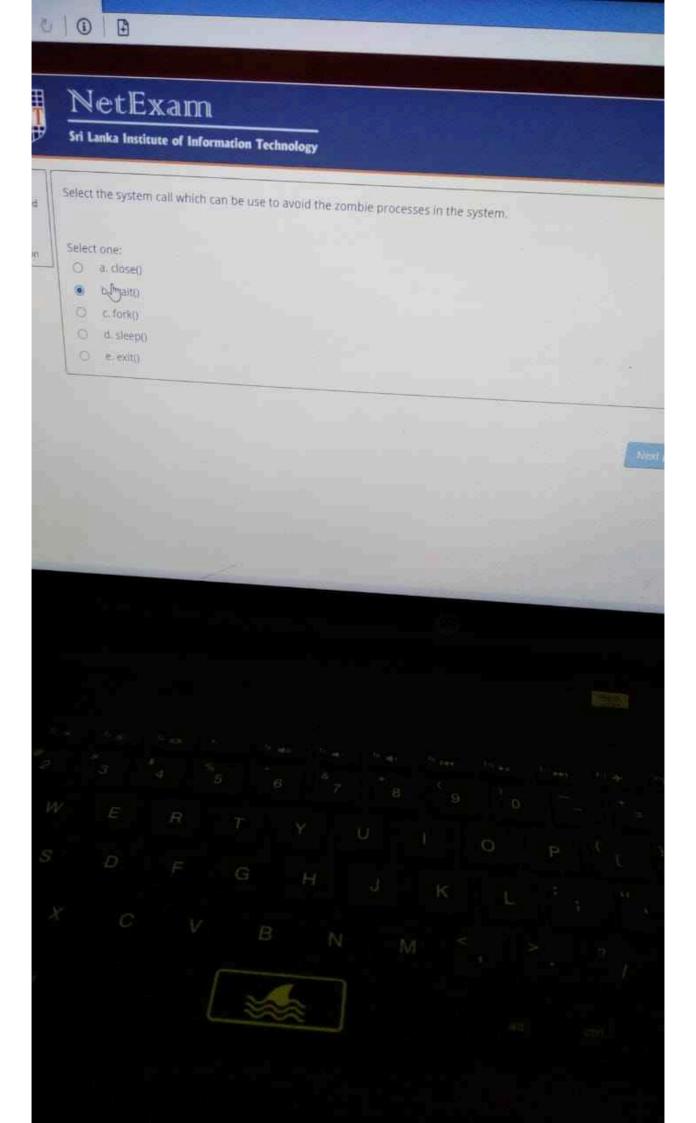


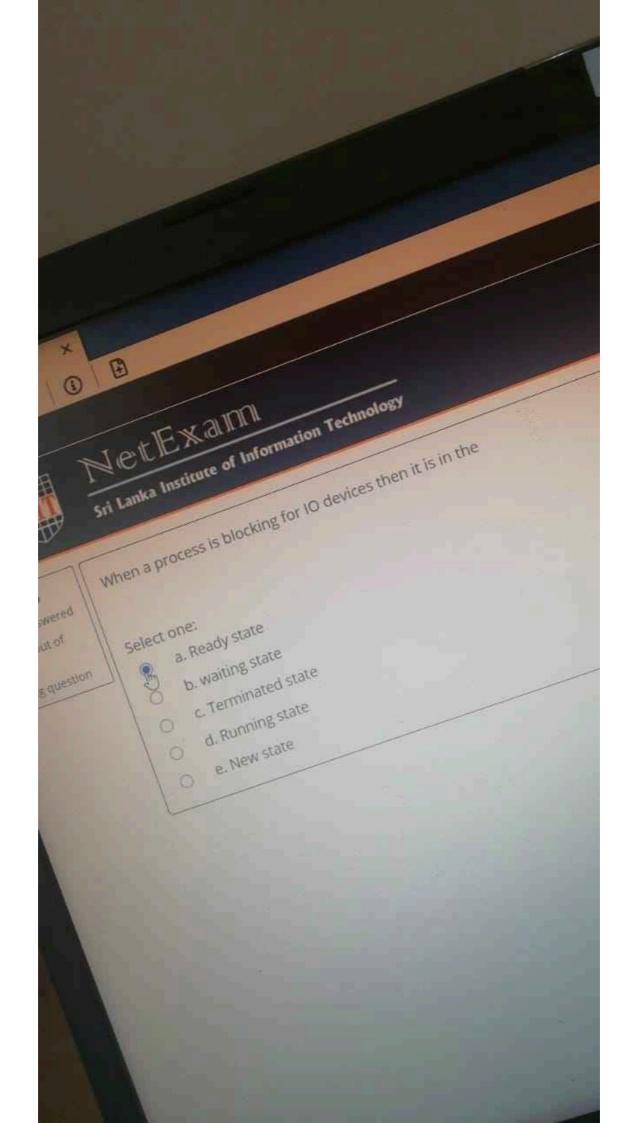
What is the operating system structure which is used by most of the modern OS? ori Lanka Institute of Information Technology b. Layered architecture select one: a. Modules c. Micro Kernel d. Object oriented e. Monolithic structure

and to RAM admitted terminated interrupt new exit ready running shedular dispatch. 5/0 or I/O or exent wait. event complete, waiting











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Consider the following four processes and their arrival and burst times.

Process	Arrival Tr		
A	Arrival Time	Burst Time	
В	0	8	
C		3	
D	5		
	8		

Compute the average waiting time

Select one:

- 0 34
- 0 6.2
- 0 63
- 0 0.25

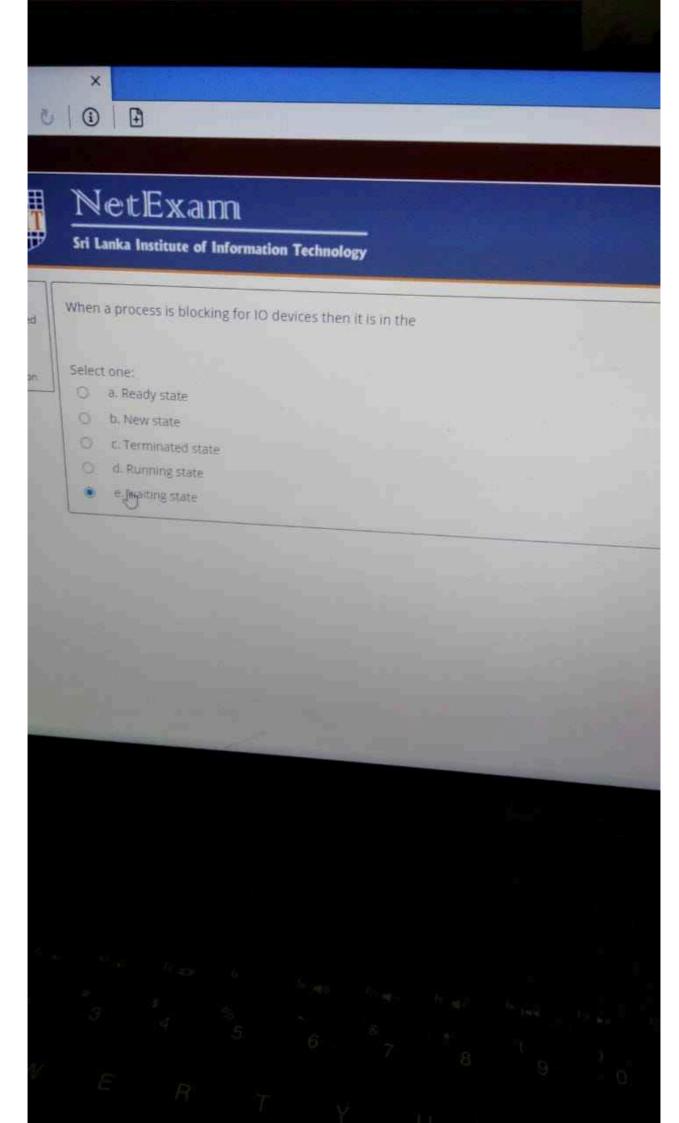
₹ 5.5

W

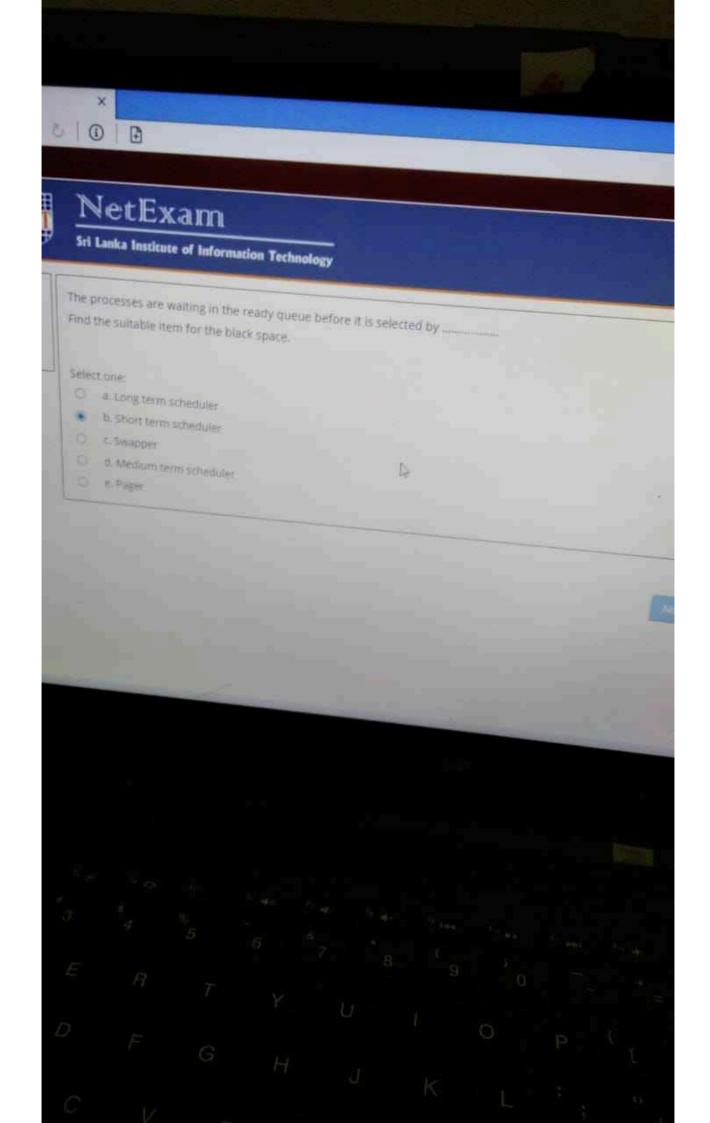
D

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te following four process states; ready, waiting, running, terminated, for the following four process states; ready, waiting, running, terminated in a process state a process will be moved. A divide by zero instruction is executed in a process will be moved. A divide by zero instruction is executed in a process will be moved. A divide by zero instruction is executed in a process will be moved. A divide by zero instruction is executed in a process. Refollowing four process states: ready, waiting, running, terminated for the following four process will be moved. A divide by zero instruction is executed in a process will be moved. A divide by zero instruction is executed in a process will be moved. a Running to new b Running to waiting < Romaing to terminate d. Running to running e Running to ready



nka Institute of Information Technology c. Dispatch latency is the time taken by the dispatcher to stop one process a ect the incorrect statement. b. First come first serve is a preemptive scheduling algorithm. a. Every process follows the CPU-10 burst cycle. e. Context switch is occurred when one process is suspended and anoth d. CPU bound process needs less I/O time. Select one:



anka Institute of Information Technology onsider the following statements for interrupt handling: B. Current state is saved in Process Control Block (PCB)

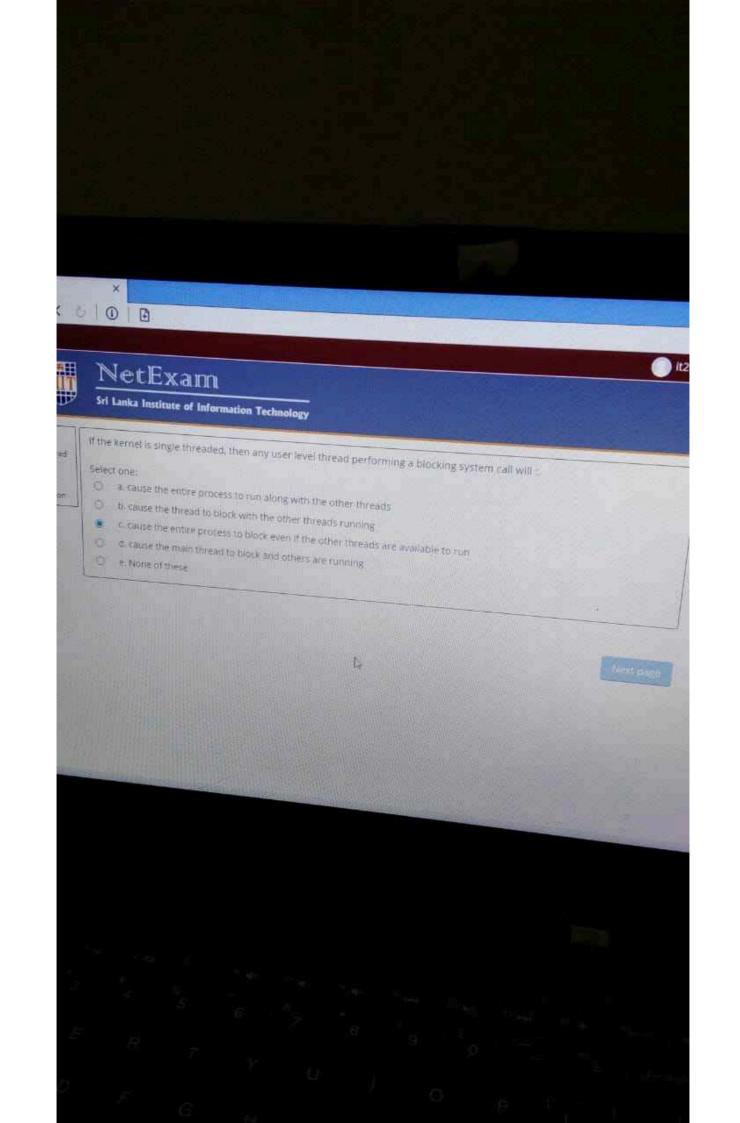
C. Interrupt received through process

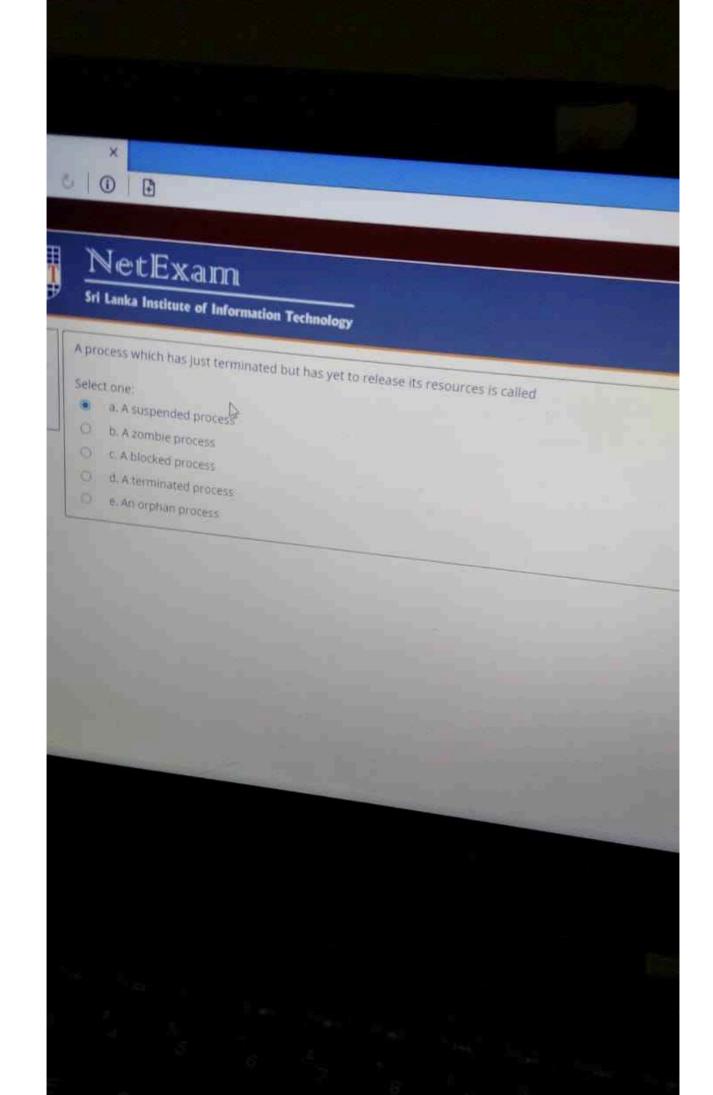
D. Resume the succeptant process A. RUN THE INTERFUE SERVICE ROUTING (ISR) OF BLOCK (PCB).

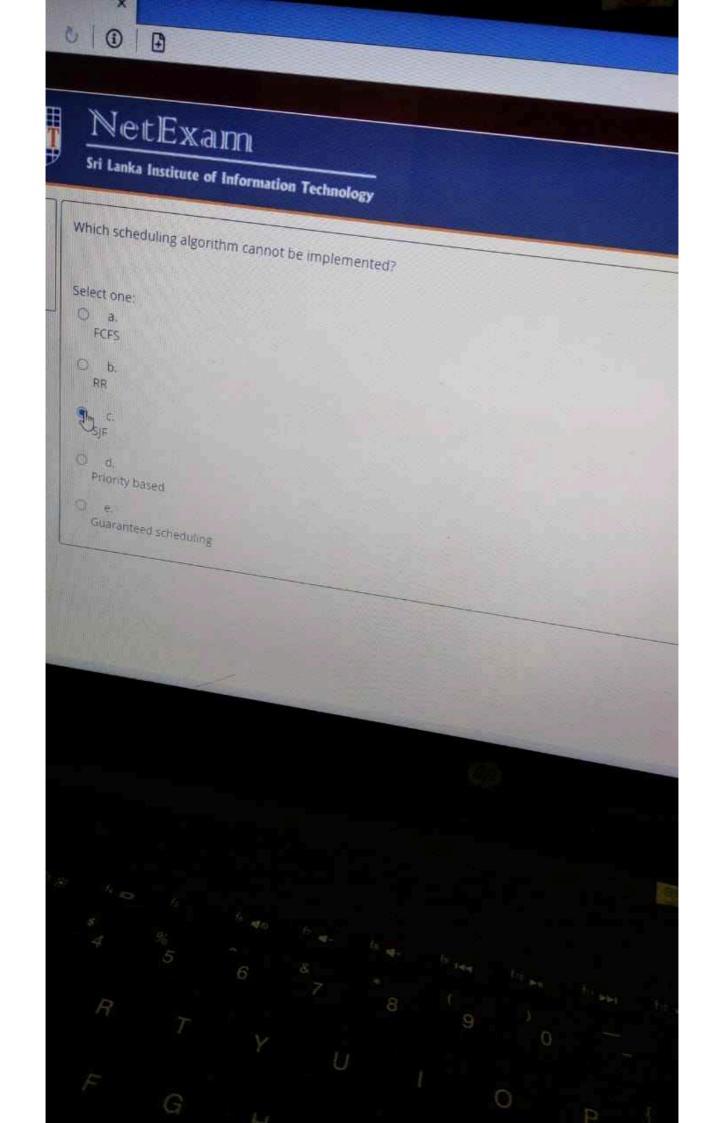
B. Current State is saved in Process to the form of the Process of A Run the Interrupt Service Routing (ISR) E. Operating system suspend the current process

E. Operating system suspend the current process

E. Arrace the Internut Verter in a D. Resume the suspended process Find the correct order the interrupt handling F. Access the Interrupt Vector (IV) a. C. E. B., F., A., D. h. C. B. E. F. A. D. Select one C.C.E.B.A.F.D. d.C.E.F.B.A.D







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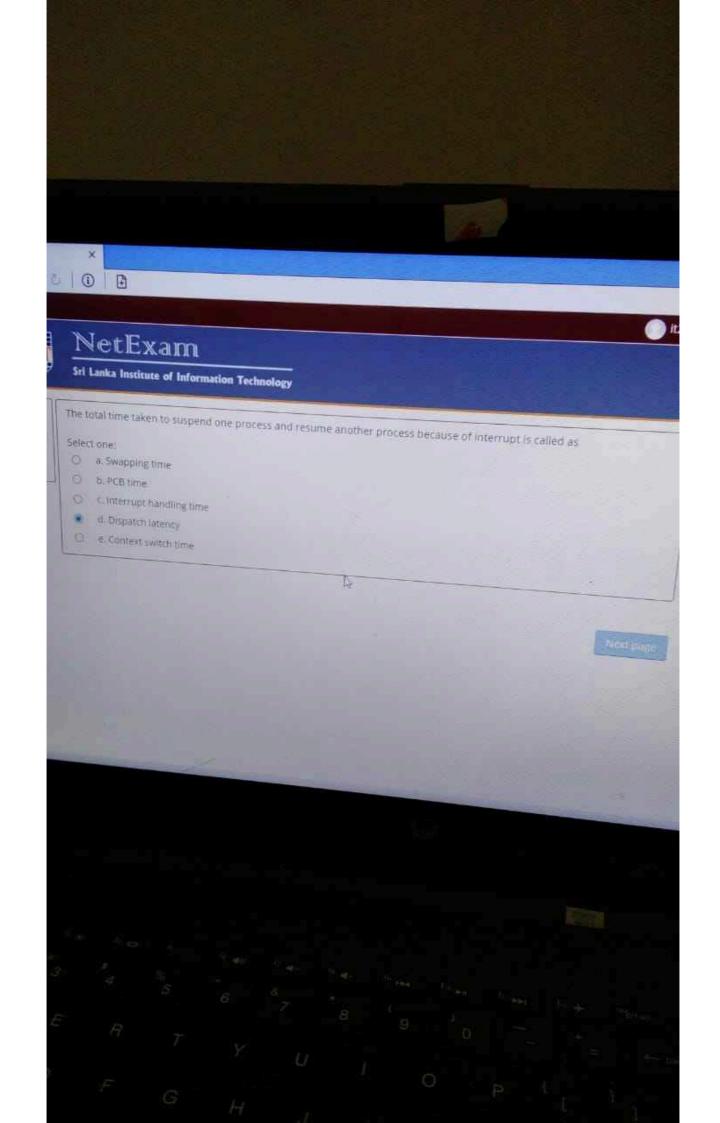
Which is not a service of the operating system?

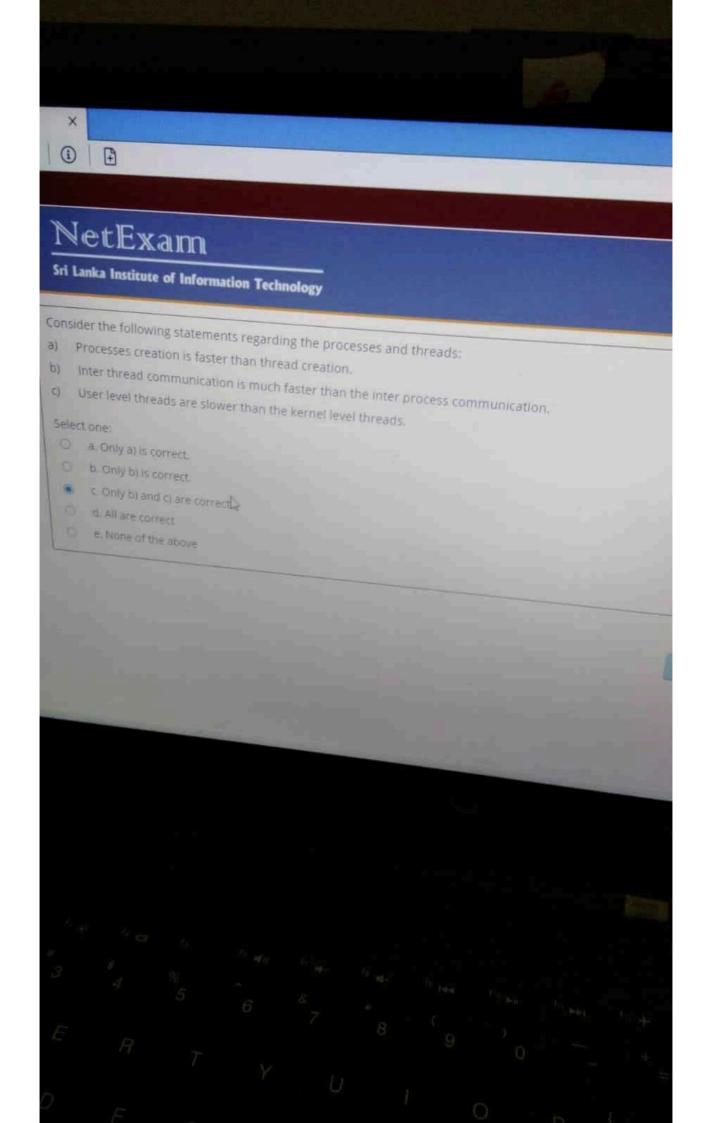
- a. File-system manipulation
- b, Process communication
- C c. Resource allocation
- d. Accounting of the resource usage O e. Virus detection

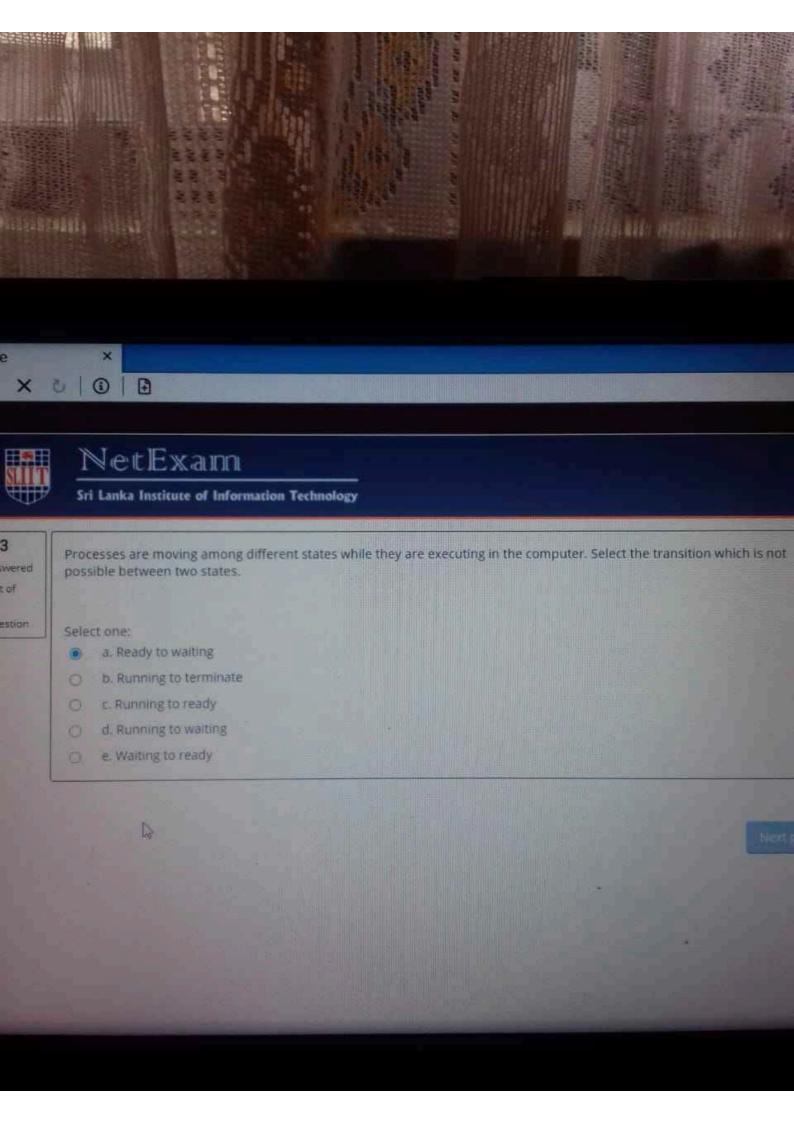
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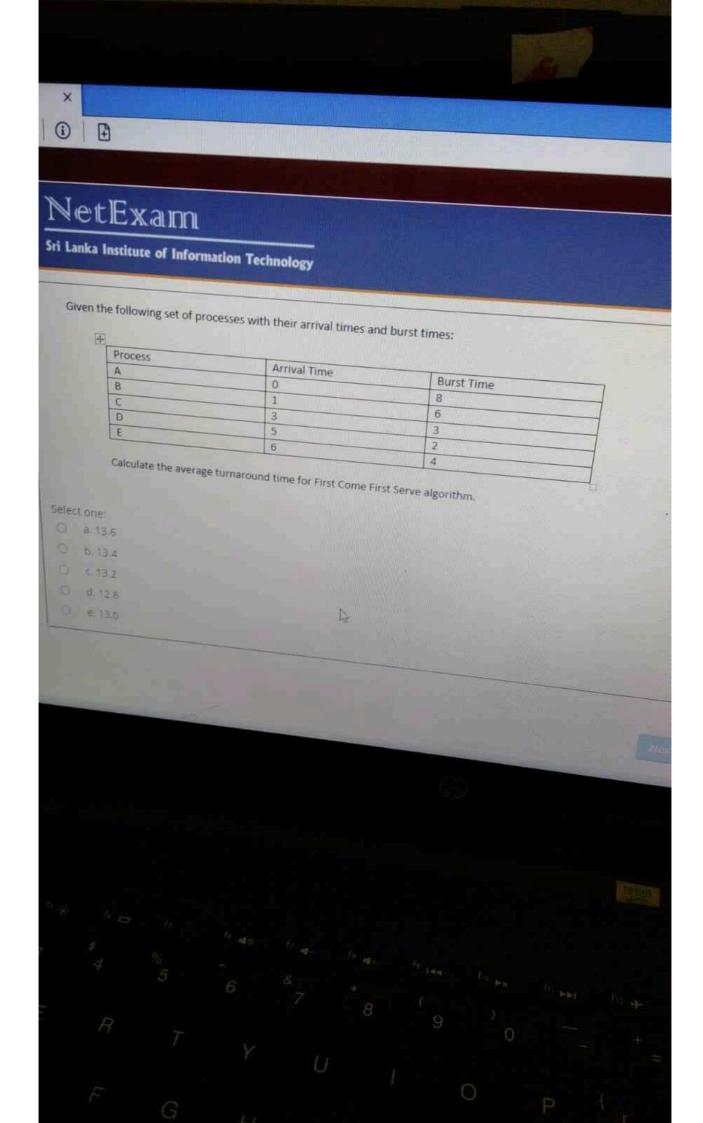
The CPU protection is implemented using

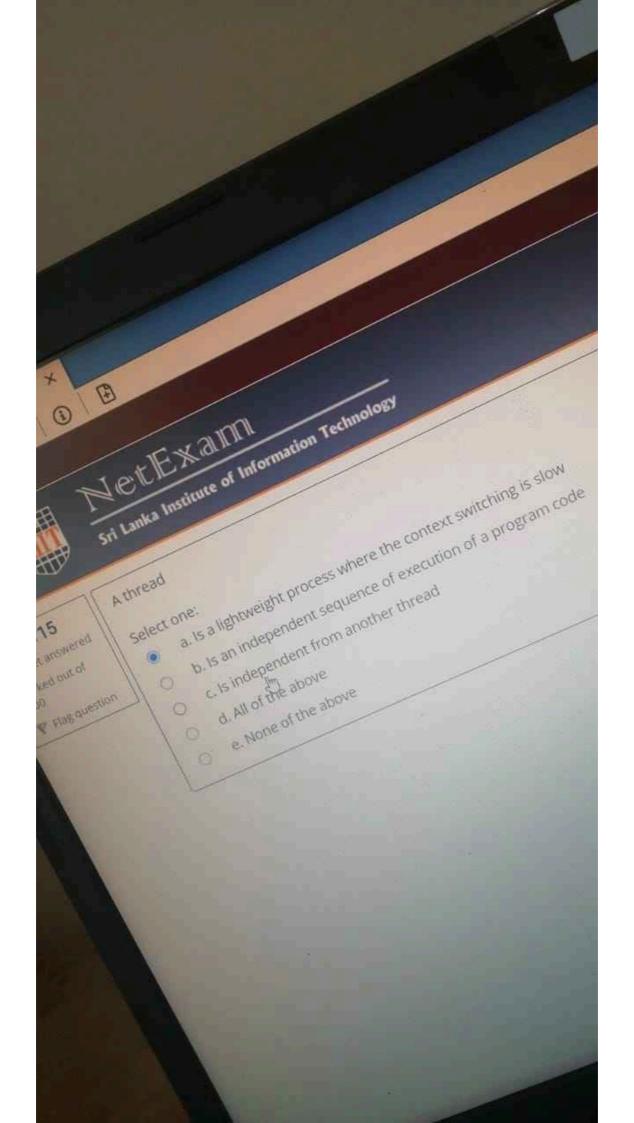
- O a Limit register
- O b. Mode bit
- C. Tirplay
- d. Non privileged instructions
- O e Base register

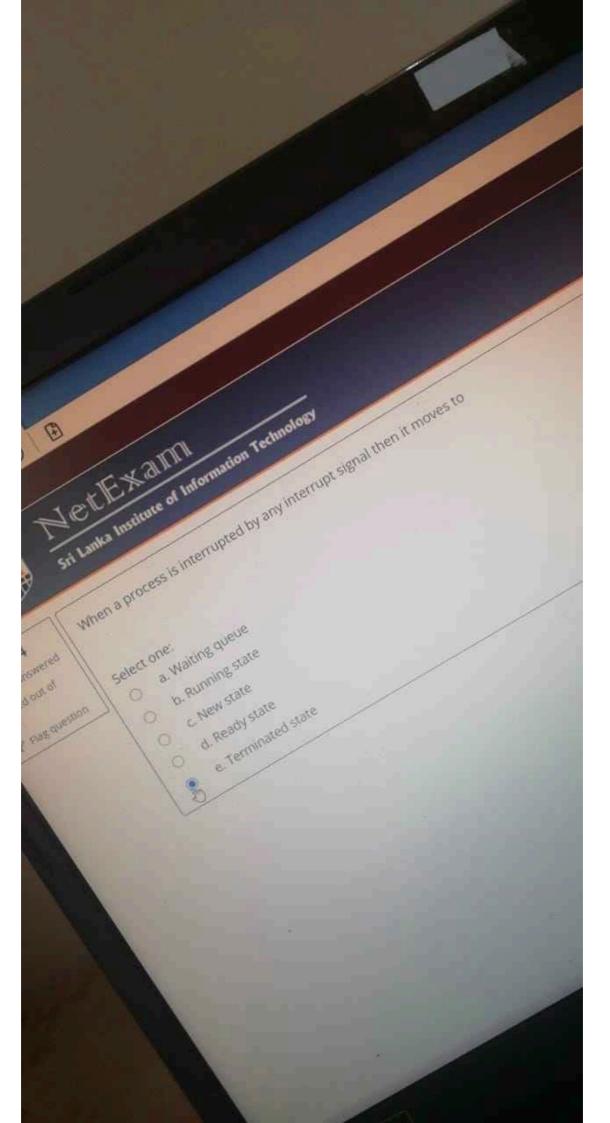








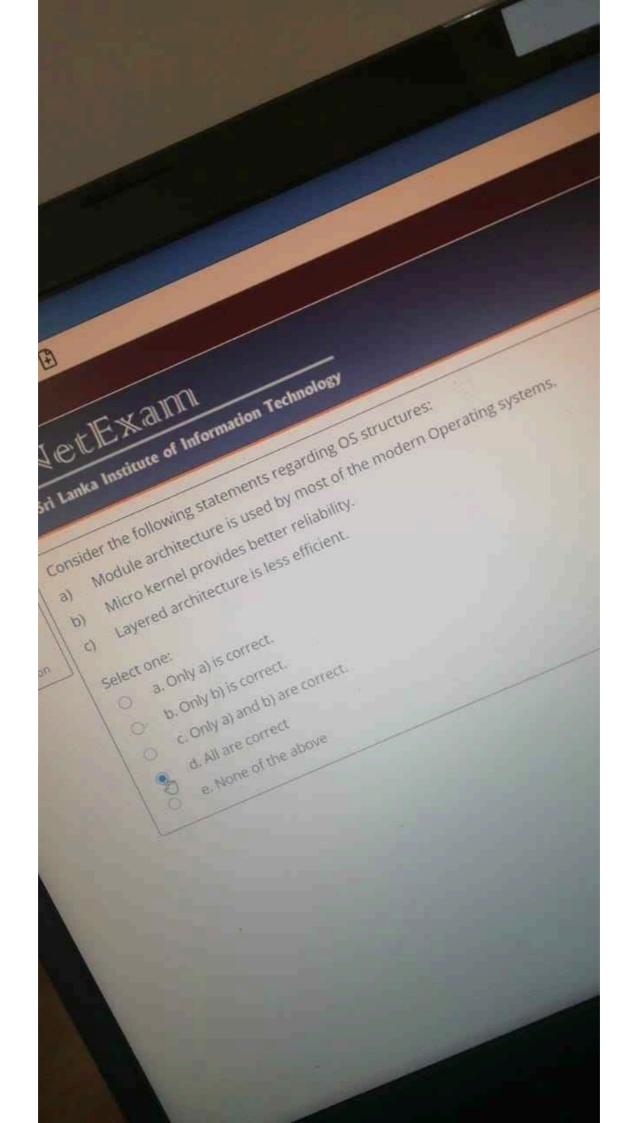


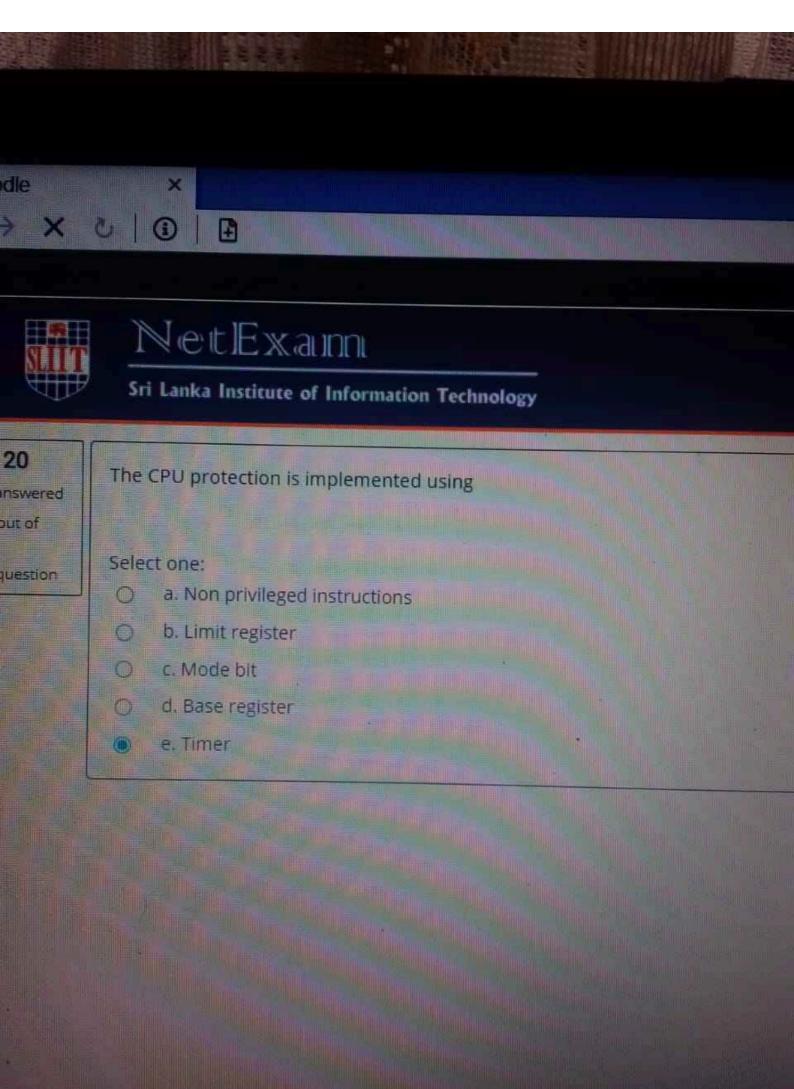


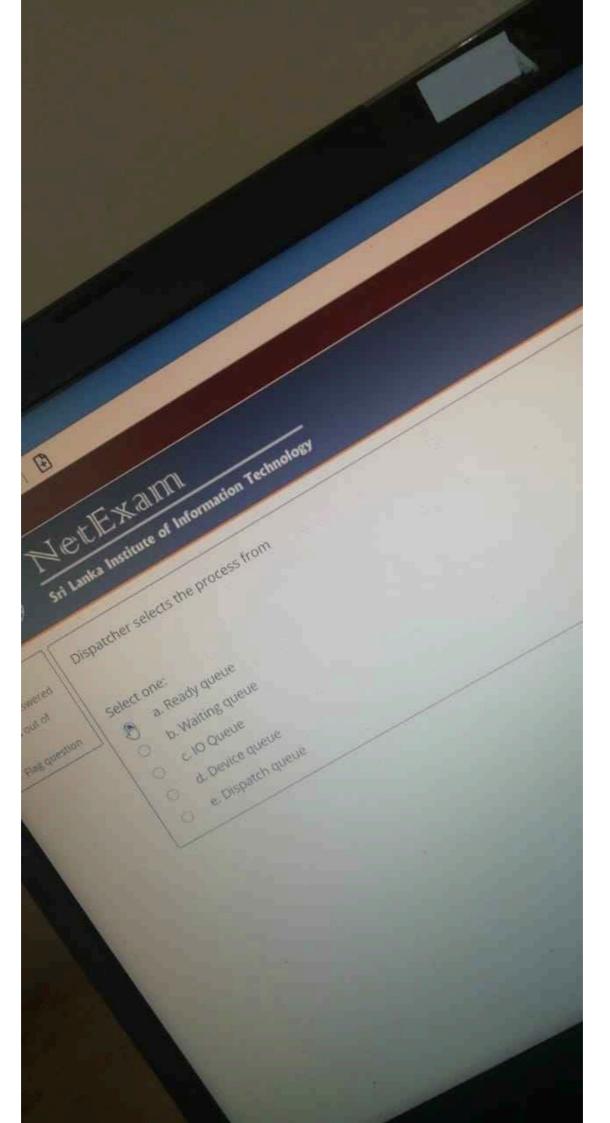
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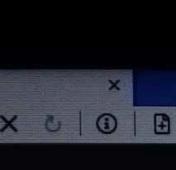
Dispatcher selects the process from

- O a. Device queue
- b. Dispatch queue
- C. Ready gueue
 - d. Waiting queue
- O e. 10 Queue











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Consider the following statements regarding the processes and threads:

- a) Processes creation is faster than thread creation.
- b) Inter thread communication is much faster than the inter process communication.
- c) User level threads are slower than the kernel level threads.

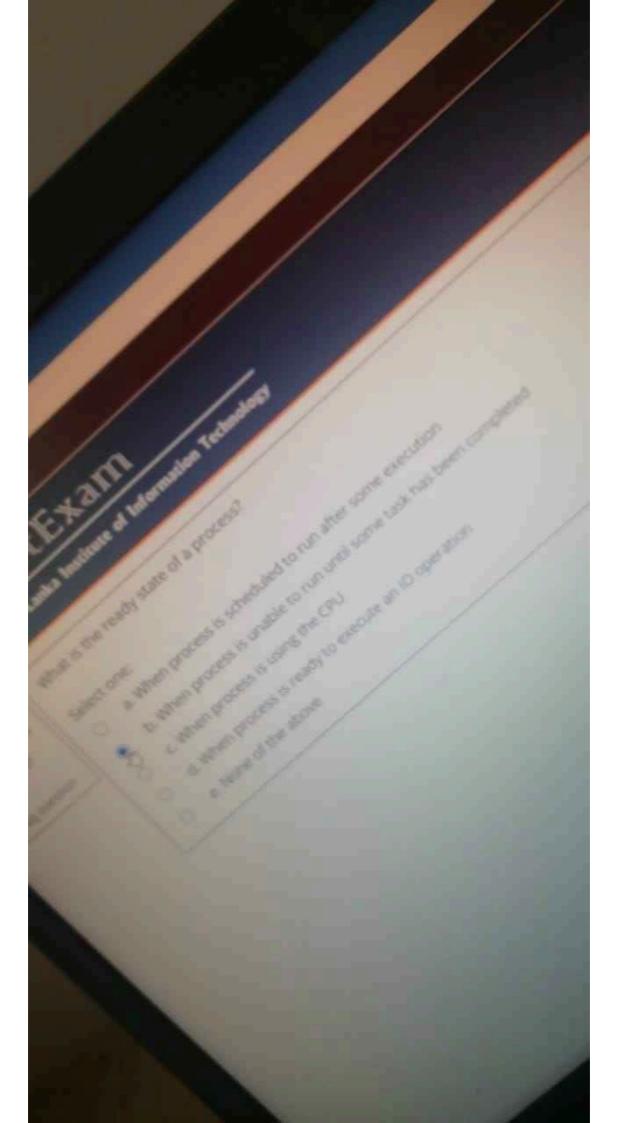
- a. Only a) is correct.
- b. Only b) is correct.
- O c. Only b) and c) are correct.
- O d. All are correct
- e. None of the above

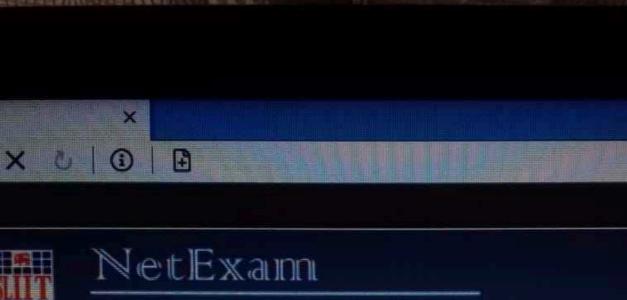


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The primary difference between user-level threads and kernel threads is

- a. User level threads do not use OS services via system calls, where kernel threads require system calls.
- b. User level threads are independent of each other, whereas kernel threads can write into each other's memors space.
- c. User level threads require memory management where kernel threads do not.
- d. All of the above
- e, None of the above





Consider the following statements regarding sockets:

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- A. Socket is a communication end point with IP address and port number.
- B. Each port number has 16 bits number.
- C. Port numbers below 1024 are already reserved for servers
- D. Every client program needs a port number for the communication.

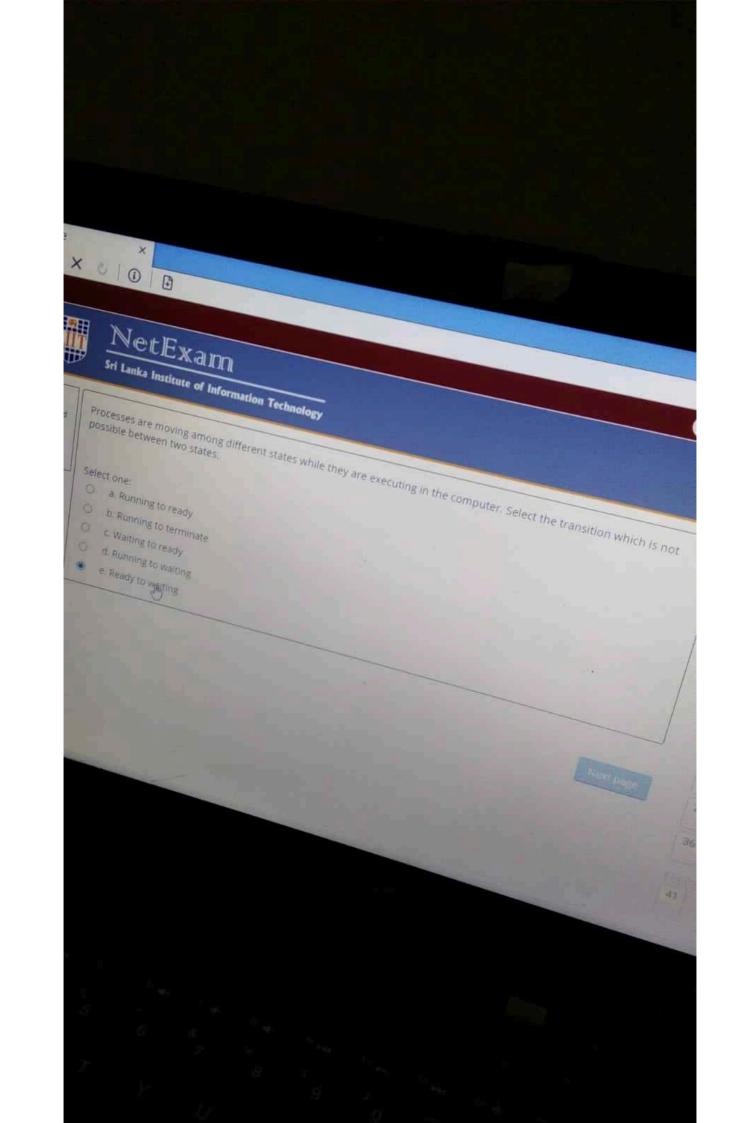
 Which of the following is correct:

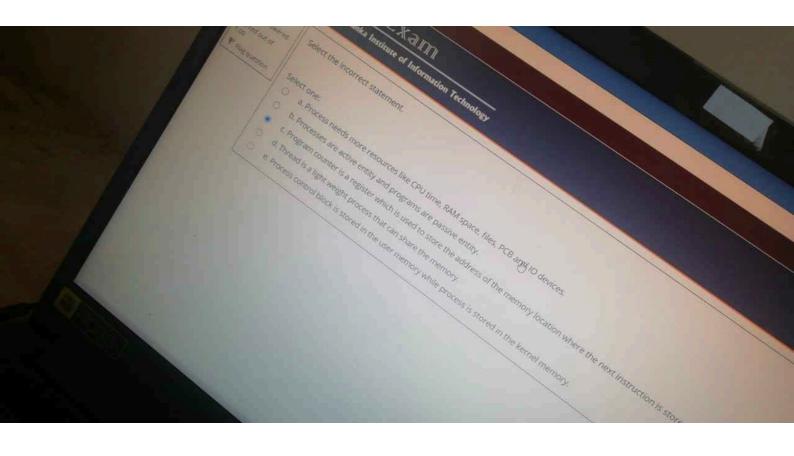
Select one:

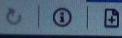
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tion

- a. Only A. is correct.
- b. Only B and C, are correct.
- c. Only A. and C. are correct.
- d. All are correct
- O e. None of the above







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Given the following set of processes with their arrival times and burst times:

Process	Arrival Time	Burst Time
A	0	8
В	1	6
C	3	3
D	5	2
E	6	4

Calculate the average waiting time for First Come First Serve algorithm.

Select one:

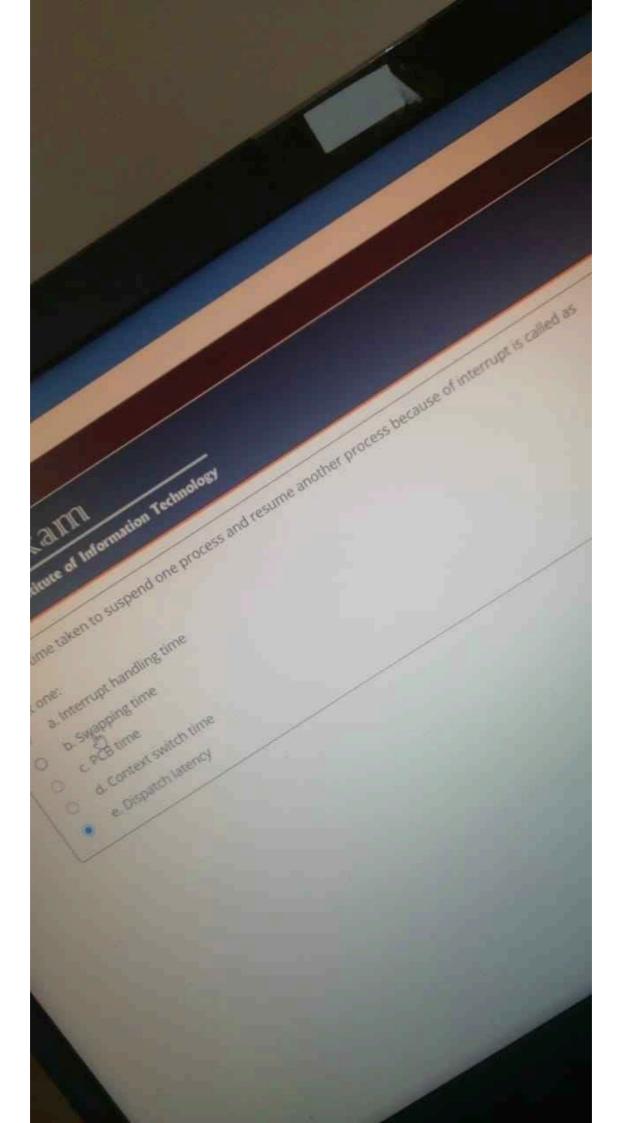
a. 8.4

b. 8.0

c. 8.6

d 88

e 8.2





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Given the following set of processes with their arrival times and burst times:

Process	Burst Time	Priority
A	9	5
В	4	3
C	5	1
D	7	2
E)	3	2

Calculate the average waiting time for Priority Scheduling algorithm.

Select one:

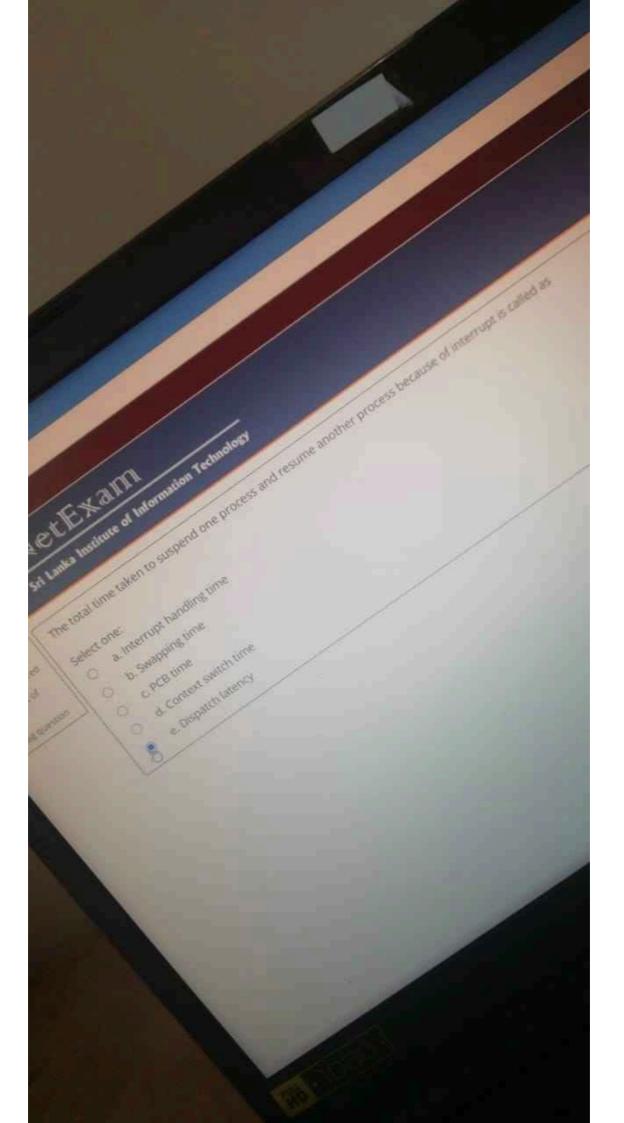
O a. 10.6

O b. 10.0

c. 10.4

d. 10.8

e. 10.2



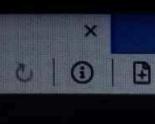
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De

The processes are waiting in the ready queue before it is selected by

Find the suitable item for the black space.

- a. Long term scheduler
- b. Short term scheduler
- o c. Medium term scheduler
- d. Swapper
- e. Pager



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What is the operating system structure which is used by most of the modern OS?

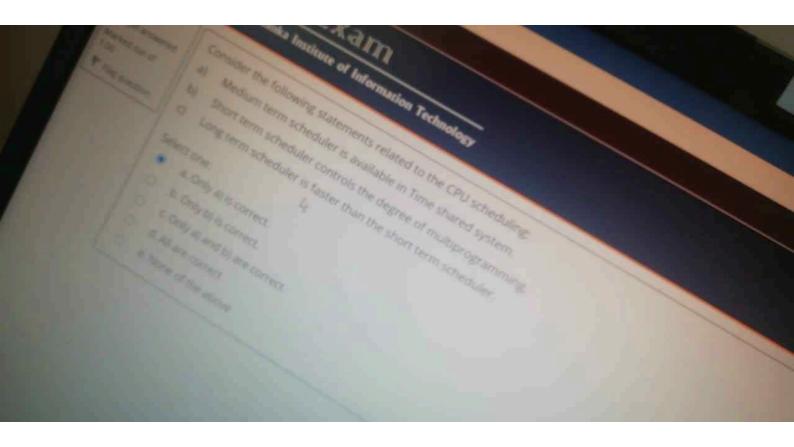
- a. Layered architecture
- o b. Object oriented
- O c. Monolithic structure
- o d. Micro Kernel
- e. Modules



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Select the incorrect statement:

- a. When the interrupt is occurred the current process state will be saved in PCB.
- c. Interrupt vector contains address of the interrupt service routine. e. Interrupts can be generated only by timer with CPU.

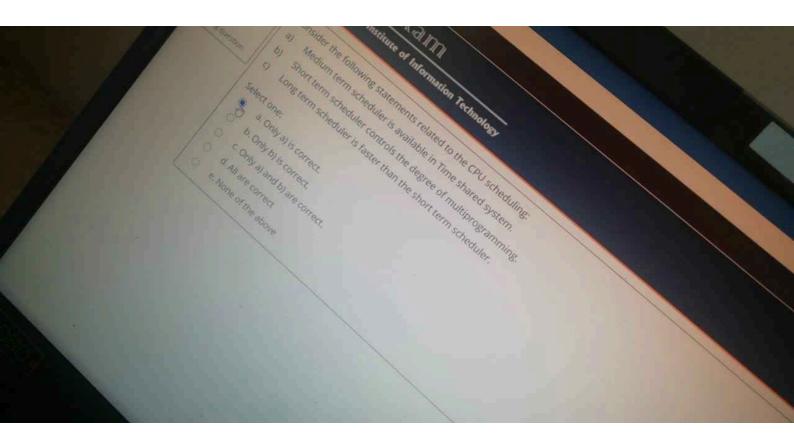


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Athread

5 | 0 | B

- a. Is a lightweight process where the context switching is slow
 - b. Is an independent sequence of execution of a program code
 - c. Is independent from another thread.
- d. All of the above
- e. None of the above



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Select the non-privileged Instruction

- a. Change the memory content
- b. Change the program counter 0
- c. Get the system time
- O d. Change the base register
- O e. Turn off the interrupt

Select the incorrect statement.

Select one:

- a. Threads are not independent since they share the memory.
- b. Context switch time between threads is faster than context switch time between processes.
- c. Pthread is a thread library which provides the specification to create and manage threads.
- d. Kernel level threads are faster than user level threads.
- e. User level threads are managed by the thread library while kernel threads are managed by system call

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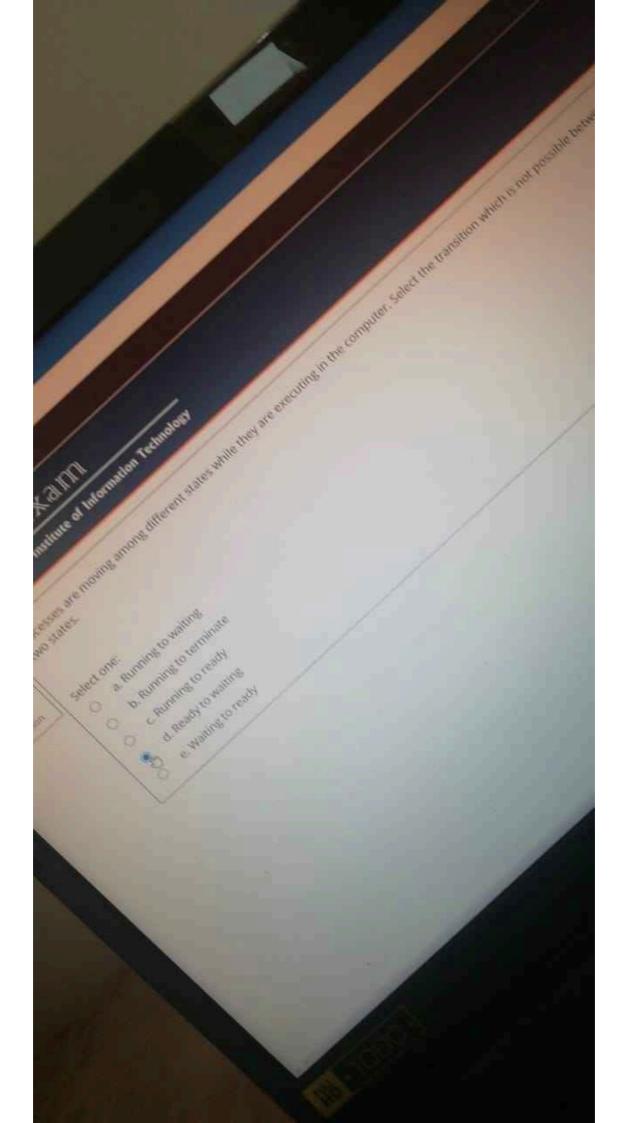
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Select the incorrect statement.

Select one:

- a. Thread is a light weight process that can share the memory.
- b. Program counter is a register which is used to store the address of the memory location where the next instruction is stored.
- c. Process control block is stored in the user memory while process is stored in the kernel memory.
- d. Process needs more resources like CPU time, RAM space, files, PCB and IO devices.
- e. Processes are active entity and programs are passive entity.

Next page



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Consider the following four processes and their arrival and burst times.

Process	Arrival Time	Burst Time
A	0	8
В	1	3
C	5	
D	8	2

Compute the average turnaround time.

Select one:

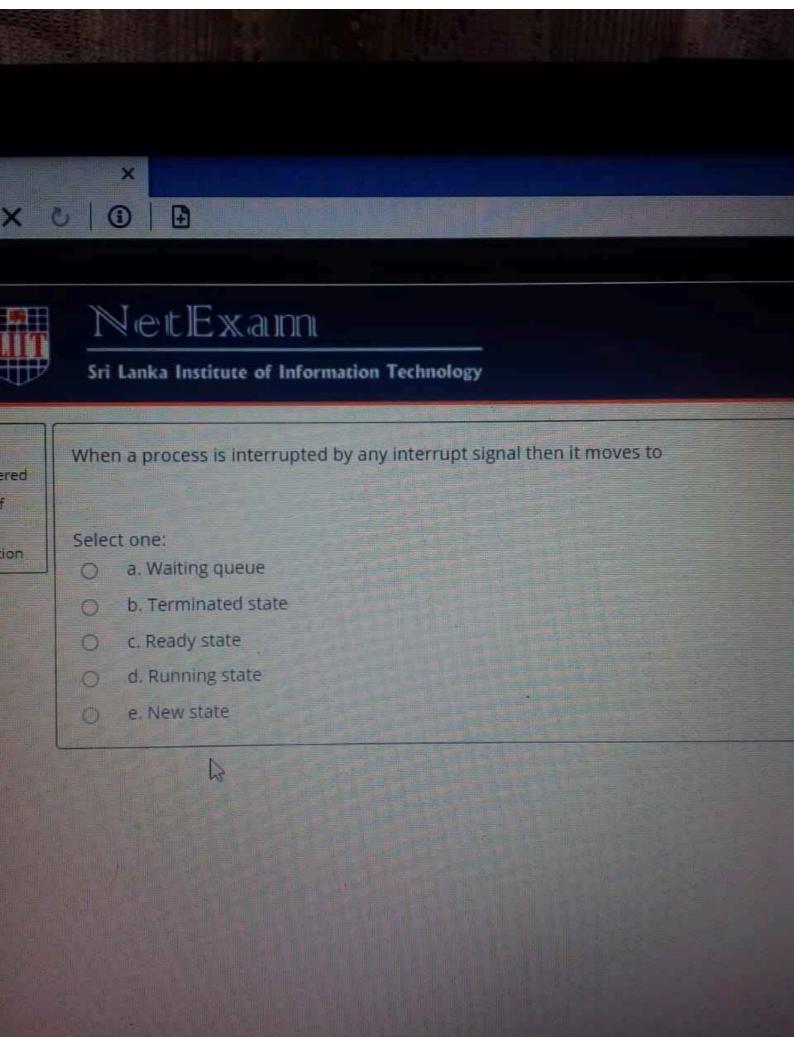
a. 6

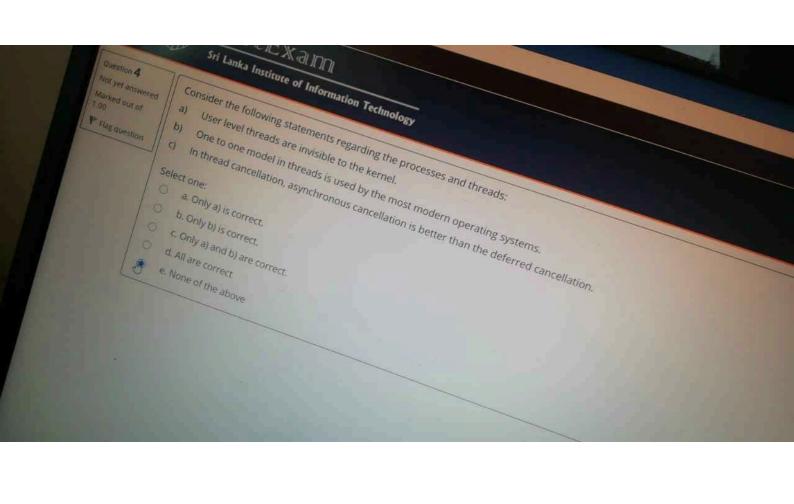
10.5

C 7

3 8 75

e. 6.5





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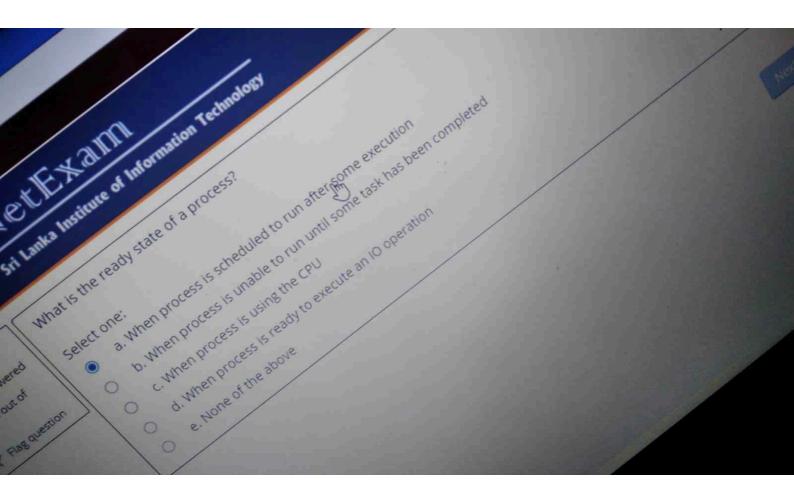
Consider the following statements regarding the processes scheduling:

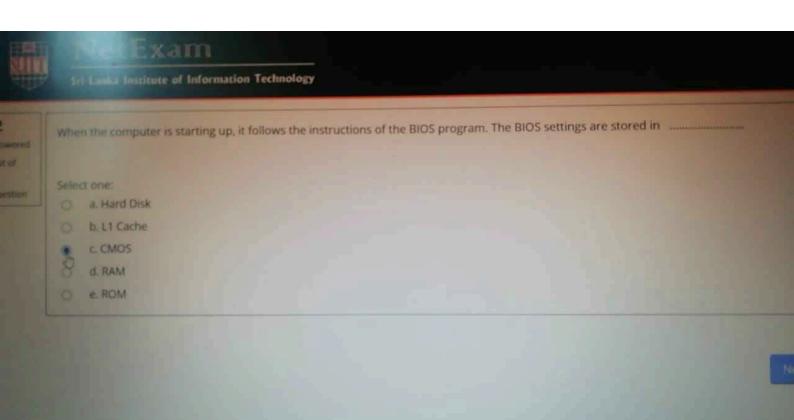
- a) Short term scheduler is faster than the medium term scheduler.
- b) Context switching between kernel level threads are faster than the user level threads.
- c) Ready queue is implemented with first in first out policy.

Select one:

9

- a. Only a) is correct.
- b. Only b) is correct.
- c. Only b) and c) are correct.
- d. All are correct
- O e. None of the above







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Select the system call which can be use to avoid the zombie processes in the system.

Select one:

- a. close()
- O b. sleep()
- O c. exit()
- o d. fork()
- e. wait()

D



Question 1 Not yet answered Marked out of 1:00

P Flag question

Select the incorrect statement.

- a. Pthread is a thread library which provides the specification to create and manage threads.
- b. Kernel level threads are faster than user level threads.
- c. Threads are not independent since they share the memory.
- User level threads are managed by the thread library while kernel threads are managed by system call
 - e. Context switch time between threads is faster than context switch time between processes.

Switching the CPU to another Process requires to save state of the old process and loading new process state is called

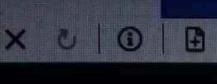
Select one:

O a. Process Blocking

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- b. Context Switch
- O c. Time Sharing
- O d. Process loading
- O e. None of the above

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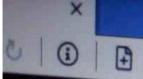
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Which scheduling algorithm cannot be implemented?

- O a.
- O b.
- RK
- SJF
- O d.
 Priority based
- O e. Guaranteed scheduling



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A process can be terminated due to

- O a, normal exit
- O b. Fatal Error
- O c. Killed by another process
- d. All of the above
- O e. None of the above

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Consider the following statements related to the Operating System:

- a) The main goal of SPOOLING is to maximize the utilization of IO devices and CPU.
- b) The main goal of the Multiprogramming is to maximize the CPU utilization.
- c) The main goal of the Time sharing system is to maximize the resource sharing.

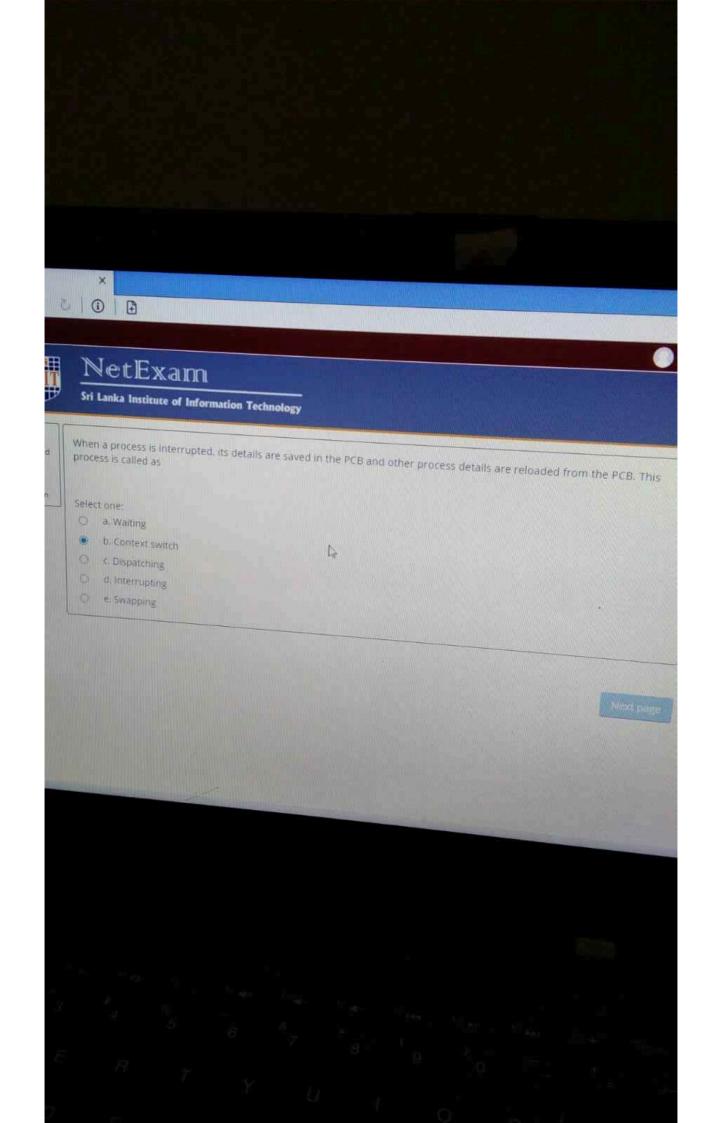
Select one:

d

n

- 13
- O a. Only a) is correct.
- b. Only b) is correct.
- O c. Only a) and c) are correct.
- O d. All are correct
- e. None of the above.

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Which scheduler move the process from new state to ready state?

Select one:

O a.

CPU scheduler

b.

Long term scheduler

) 6

Short term scheduler

0 6

Medium term scheduler

O e. None of the above