Started on	Monday, 5 May 2025, 4:30 PM
State	Finished
Completed on	Monday, 5 May 2025, 4:38 PM
Time taken	8 mins 11 secs
Marks	13.00/20.00
Grade	**65.00** out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Which of these statements about virtual memory is true?

- a.   It improves file compression

- b.   It provides unlimited RAM

- c.   It uses disk as an extension of RAM ✔

- d.   It increases CPU clock speed

Question 2

Correct

Mark 1.00 out of 1.00

What is swapping in OS?

- a.   Copying data to GPU

- b.   Rearranging cache content

- c.   Shifting instructions between cores

- d.   Moving processes in/out of main memory to/from disk ✔

Question 3

Correct

Mark 1.00 out of 1.00

Which of the following is not a valid page replacement algorithm?

○ a.   Optimal

○ b.   LRU

○ c.   FIFO

◉ d.   Round Robin ✔

Question 4

Incorrect

Mark 0.00 out of 1.00

The main function of the I/O control system is:

◉ a.   User interface ✘

○ b.   Memory segmentation

○ c.   Buffering and device communication

○ d.   CPU scheduling

Question 5

Correct

Mark 1.00 out of 1.00

The role of the dispatcher is to:

◉ a.   Assign CPU control to the selected process ✔

○ b.   Handle memory allocation

○ c.   Handle memory allocation

○ d.   Manage file systems

Question 6

Correct

Mark 1.00 out of 1.00

The Banker's algorithm is used to:

○ a.   Prevent segmentation faults

◉ b.   Avoid deadlocks ✔

○ c.   Detect deadlocks

○ d.   Recover from deadlocks

Question 7

Correct

Mark 1.00 out of 1.00

Which system call is used to terminate a process?

○ a.   fork()

○ b.   wait()

◉ c.   kill() ✔

○ d.   exec()

Question 8

Correct

Mark 1.00 out of 1.00

A critical section is:

○ a.   Protected memory space

◉ b.   A segment of code that accesses shared resources ✔

○ c.   Code used to initialize variables

○ d.   User-level exception

Question 9

Incorrect

Mark 0.00 out of 1.00

What is thrashing in OS?

○ a.   Excessive swapping in/out of memory

○ b.   Spooling too many jobs

○ c.   Fragmentation of cache memory

◉ d.   Memory leaks ✖

Question 10

Correct

Mark 1.00 out of 1.00

What is the main advantage of multithreading?

○ a.   Increased disk space

◉ b.   Concurrent execution of tasks ✔

○ c.   Increased disk space

○ d.   Increased disk space

Question 11

Incorrect

Mark 0.00 out of 1.00

Which condition is not required for a deadlock to occur?

○ a.   Hold and Wait

○ b.   Circular Wait

◉ c.   Mutual Exclusion ✖

○ d.   Preemption

Question 12

Incorrect

Mark 0.00 out of 1.00

Which of the following is not a type of CPU scheduling?

- ○ a.   Round Robin
- ○ b.   LRU
- ◉ c.   SJF ✖
- ○ d.   FCFS

Question 13

Incorrect

Mark 0.00 out of 1.00

Which of the following is not a valid process state?

- ○ a.   Waiting
- ○ b.   Executing
- ◉ c.   Suspend Terminated ✖
- ○ d.   Ready

Question 14

Correct

Mark 1.00 out of 1.00

What is a zombie process?

- ○ a.   A process holding all system memory
- ○ b.   A process waiting for I/O
- ◉ c.   A terminated process with no parent to read its exit status ✔
- ○ d.   A process stuck in an infinite loop

Question 15

Incorrect

Mark 0.00 out of 1.00

Which memory management scheme requires relocation registers?

○ a.   Contiguous memory allocation

○ b.   Paging

◉ c.   Segmentation ✘

○ d.   Virtual memory

Question 16

Correct

Mark 1.00 out of 1.00

What does the fork() system call do?

○ a.   Spawns a new kernel

◉ b.   Creates a new process ✔

○ c.   Switches to kernel mode

○ d.   Creates a thread

Question 17

Correct

Mark 1.00 out of 1.00

What is the purpose of a file system?

○ a.   Allocate registers

○ b.   Increase CPU speed

◉ c.   Provide mechanisms for storing and retrieving files ✔

○ d.   Manage file names

Question 18

Incorrect

Mark 0.00 out of 1.00

In a system using round-robin scheduling, what happens when a process's time slice expires?

- ○ a.   It moves to the end of the ready queue
- ◉ b.   It moves to the end of the ready queue ✗
- ○ c.   It switches to kernel mode
- ○ d.   It gets terminated

Question 19

Correct

Mark 1.00 out of 1.00

Semaphores are used to solve:

- ◉ a.   Process synchronization ✔
- ○ b.   Disk scheduling
- ○ c.   Paging problems
- ○ d.   CPU scheduling

Question 20

Correct

Mark 1.00 out of 1.00

In which scheduling algorithm can starvation occur?

- ○ a.   FIFO
- ◉ b.   Priority Scheduling ✔
- ○ c.   Multilevel Queue
- ○ d.   Round Robin