

[✦✦ Summarise](#)

Status	Finished
Started	Tuesday, 20 May 2025, 11:29 AM
Completed	Tuesday, 20 May 2025, 11:32 AM
Duration	3 mins 15 secs
Marks	20.00/20.00
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

Critical section – This is code that must not be interrupted.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 2

Correct

Mark 1.00 out of 1.00

Multitasking – The process of scheduling and switching between multiple CPUs and several tasks.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 3

Correct

Mark 1.00 out of 1.00

Semaphores – Counting semaphores using key value 0 or 1 to control the execution of the tasks.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 4

Correct

Mark 1.00 out of 1.00

Reentrancy – The following function is an example of a non-reentrant function.

```
void swap()
{
    int x, int y ;
    int Temp;
    Temp = x;
    x = y;
    y = Temp;
}
```

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 5

Correct

Mark 1.00 out of 1.00

Message Queues - It is basically an array of mailboxes.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 6

Correct

Mark 1.00 out of 1.00

Non-Preemptive kernel - Highest priority task that is ready to run is always given control of the CPU.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 7

Correct

Mark 1.00 out of 1.00

Intertask communication - Message and global variables are the ways for tasks to communicate.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 8

Correct

Mark 1.00 out of 1.00

Dynamic priorities - The priority of a task changes during the application's execution.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 9

Correct

Mark 1.00 out of 1.00

If an application cannot effort extra cost of resources ROM/RAM the used of a real-time operating system should be consider.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 10

Correct

Mark 1.00 out of 1.00

Context switch - The process of saving the context (contents of CPU registers) of a task and then loading the context of another task.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 11

Correct

Mark 1.00 out of 1.00

Scheduler - The part of the kernel which determines which task will run next.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 12

Correct

Mark 1.00 out of 1.00

Interrupts - In a real-time environment, interrupts should be disabled as many as possible.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 13

Correct

Mark 1.00 out of 1.00

Assigning task priorities - In Rate Monotonic Scheduling tasks with the lower rate of execution are given the highest priority.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 14

Correct

Mark 1.00 out of 1.00

Task – Each task is an infinite loop, which can be in different states such as Dormant, Ready, Running, Waiting and ISR

Select one:

- ☒ True ✓
- ☐ False

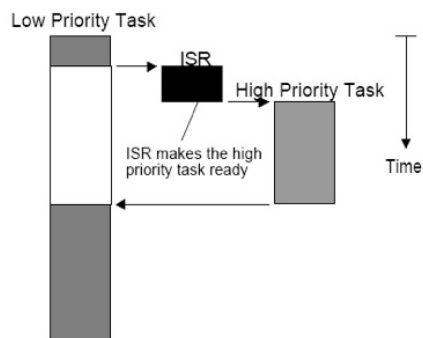
The correct answer is 'True'.

Question 15

Correct

Mark 1.00 out of 1.00

Preemptive Kernel – The following figure shows the execution profile of preemptive kernel.



Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 16

Correct

Mark 1.00 out of 1.00

Static priorities - This helps avoid priority inversions.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 17

Correct

Mark 1.00 out of 1.00

Mutual exclusion – Disabling interrupts is one of the methods to guarantee mutual exclusion.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 18

Correct

Mark 1.00 out of 1.00

Round-Robin scheduling - The kernel gives control to the next task in line if the current task doesn't have any work to do during its time slice or the current task completes before the end of its time slice.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 19

Correct

Mark 1.00 out of 1.00

Clock Tick - The clock tick is used to allow tasks to delay themselves for a time.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 20

Correct

Mark 1.00 out of 1.00

Task Priority – The more important the task is assigned the lower priority.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.