

4 (a) A scheduling routine determines how processes are managed by the operating system.

Identify **two** scheduling routines.

1

2

[2]

(b) Describe **two** ways in which the complexities of the computer hardware are hidden from the user.

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2

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[4]

5 The management and scheduling of processes are tasks carried out by an operating system.

(a) Identify **three** process states.

- 1
- 2
- 3 [3]

(b) Describe the function of the shortest job first scheduling routine **and** give a benefit of this routine.

Function

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Benefit

..... [4]

6 The management and scheduling of processes are tasks carried out by an operating system.

(a) Describe **one** reason why scheduling is necessary in process management.

[2]

(b) Explain the function of the round robin scheduling routine **and** give a benefit of this routine.

Function

Benefit

[4]

9 (a) The kernel is the central component of an Operating System (OS).

Outline how the kernel of an OS acts as an interrupt handler.

[2]

(b) (i) State what is meant by the term **multi-tasking** in an Operating System.

[1]

(ii) Describe how multi-tasking is implemented in an Operating System.

[2]

8 (a) Describe the process of **segmentation** for memory management.

[4]

(b) Explain what is meant by **disk thrashing**.

..... [3]