

- 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.

1 .....

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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 .....

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[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.

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..... [2]

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

Function .....

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Benefit .....

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[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.

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..... [2]

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

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..... [1]

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

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..... [2]

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

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

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..... [3]