## Past Papers Questions:

# Section 3.1: The Functions of Operating Systems

### May/June 2003

9      Describe what happens when a processor which is currently working on a job receives an interrupt from an external source.

[6]

### October / November 2003

2      Explain how memory can be managed to allow more than one large job to appear to be stored simultaneously in the memory.

[5]

9      (a) Describe the process of spooling when sending jobs for printing. [3]
(b) Explain the importance of job type when a number of jobs are being processed using a multiprogramming operating system. [3]

### May/June 2004

5      (a) Describe the objectives of scheduling in a multi-user operating system. [3]
(b) Describe two common scheduling policies. [4]
(c) State five methods by which the priority of a job may be determined. [5]

### October/November 2004

3      Describe how memory is managed in a typical modern computer system. Your answer should include an explanation of
(i) fragmentation of memory, [3]
(ii) paging, [3]
(iii) segmentation, [3]
(iv) virtual memory. [3]

### May/June 2005

5      An organisation manages an intranet.
(c) A network operating system (NOS) is used to control the network. Describe
        (i) transparency,
        (ii) directory services,
        (iii) security
as components of a NOS. [6]

### October/November 2005

5      (a) State the purpose of an interrupt in a computer system. [1]
(b) Describe what is meant by a
        (i) timer interrupt,
        (ii) hardware interrupt. [4]

### May/June 2006

9      (a) Explain the meaning of the terms;
        (i) virtual memory, [2]
        (ii) paging memory, [2]
        (iii) segmentation of memory. [2]

(b) (i) State what is meant by the term spooling. [2]
      (ii) Describe the process of sending jobs for printing using a spooler. [3]

### October/November 2006

9      (a) Explain why the operating system, of a multi-access computer system, needs to schedule the processing of jobs. [2]
(b) Describe how the operating system manages the throughput of jobs. Your answer should contain references to scheduling, job queues and priorities. [5]

## May/June 2007

1    (a) Describe the following features of a network operating system.
          (i) Transparency
          (ii) Directory services
          (iii) Security                                                    [6]
     (b) Describe two of the main components of a typical desktop PC operating system.    [4]

## October/November 2007

## May/June 2008

8 One of the main features of an operating system is the ability to schedule job throughput.
          (a) Explain the purpose of scheduling job throughput.                [2]
          (b) Describe three scheduling policies which lead to different scheduling algorithms.    [6]