- **0** 1 Priority queues and linear queues are examples of data structures.
- **0** 1. 1 A data structure can be implemented as a dynamic data structure or as a static data structure.

Discuss the advantages and disadvantages of dynamic data structures compared to static data structures.

[4 marks]

Describe the steps involved in adding an item to a linear queue that has been implemented as a static data structure using an array. Your answer should include a description of how any pointers are used and changed.

[3 marks]

O 1.3 For a priority queue, the process to determine where a new item should be added is more complex than it is with a linear queue.

Describe the steps involved when adding an item to a priority queue, implemented as a static data structure using an array, that were not required when adding an item to a linear queue.

[3 marks]

- 0 2 A queue data structure can be implemented as a static data structure using an array.
- Describe **three** differences between dynamic and static data structures.

[3 marks]