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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]**0 1 . 2**

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]**0 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
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A queue data structure can be implemented as a static data structure using an array.

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Describe **three** differences between dynamic and static data structures.

[3 marks]

0	3
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Describe the process that should be followed to add an item to a circular queue implemented as a static data structure using an array.

Your method should deal appropriately with any issues which could arise.

[5 marks]

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Circular queues and linear queues are examples of data structures that can be implemented using a fixed-length array.

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Explain why, when implemented using a fixed-length array, a circular queue is usually considered to be a better choice of data structure than a linear queue.

[2 marks]

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Describe the steps that must be completed to remove (dequeue) an item from a circular queue that has been implemented using a fixed-length array.

[5 marks]