Further Modula-3

A Modula-3 library module is required to provide a buffered stream of characters between two threads, with appropriate synchronization.

Write a Buffer interface defining an opaque object type, T, with the following methods:

- **init**: taking an argument specifying the buffer size and returning a suitably initialized object
- **put**: inserting a single character into the buffer
- **get**: extracting a single character from the buffer

[4 marks]

Sketch a corresponding implementation giving

(a) the concrete revelation of the types [4 marks]

(b) the three default methods [4 marks each]