4. (a) What is the *JCF* (*Java Collections Framework*)? [3 marks]

(b) In the package `java.util`, the declaration for Queue is

```
public interface Queue<E> extends Collection
```

   (i)   Why is Queue declared as an `interface`? [2 marks]
   (ii)   Why does Queue `extend Collection`? [2 marks]
   (iii) What does the Java syntax `<E>` mean? [1 mark]

(c) Why might a programmer choose to use `java.util.Queue` rather than write
their own Queue class? [5 marks]