

**QUESTION 7**

*Memo*

7.1

<b>Stock</b>
<b>Properties</b> - String name - String category - double costPrice - int stockLevel
<b>Methods</b> + Constructor (String n, String c, double c, int s) + getName() : String + getCostPrice() : double + getStockLevel() : int + setStockevel() + toString() : String

Mark allocation:

- one mark for name of class
- one mark to show all properties as private
- one mark for all properties correctly named with appropriate types
- one mark for costPrice shown as double
- one mark for all methods shown as public
- two marks for constructor with correct number of parameters
- one mark for all three getters and one setter
- two marks for toString() method shown and correctly typed

7.2 7.2.1 They are needed because the properties are set as private and therefore cannot be accessed from outside the Stock class.

7.3 7.3.1 Parameter

7.3.2 To be used as a subscript to refer to/identify an individual element in the array.

7.3.3 The name field of **one** element in stockArr at position pos is compared to the value of the parameter name and if they are equal (i.e. the same stock item) then the stockLevel field of the same array element is reduced by 1. This method would be useful when a sale is made to update the number of items in stock.

7.4    7.4.1    outFile <- "duplicates.txt"  
                 size <- size of stockArr  
                 loop <- 0 to size  
                 begin  
                     if stockArr[loop].getName = stockArr[loop+1].getName  
                     begin  
                         outFile <- stockArr[loop].getName +  
                         stockArr[loop].getStockLevel +  
                         stockArr[loop+1].getName +  
                         stockArr[loop+1].getStockLevel  
                     end if  
                 end loop  
         write outFile to disk and close outFile

Mark allocation:  
initialise variables  
set up correct loop  
for correct if statement to test name field of two elements  
concatenate all values to be output to file  
output to file and close file

- 7.4.2    Perform a check when the data was being read in from the text file against what had already been put into the array (loop through the existing items) – flag duplicates.  
         Have a method which could read through the file to check for duplicates before any data is entered into the array.

Accept any valid technique.

**Total: 180 marks**