

3 A factory needs a program to help manage its production of items.

Data will be stored about each item.

The data for each item will be held in a record structure of type `Component`.

The programmer has started to define the fields that will be needed as shown in the table.

Field	Example value	Comment
Item_Num	123478	a numeric value used as an array index
Reject	FALSE	TRUE if this item has been rejected
Stage	'B'	a letter to indicate the stage of production
Limit_1	13.5	any value in the range 0 to 100 inclusive
Limit_2	26.4	any value in the range 0 to 100 inclusive

(a) (i) Write pseudocode to declare the record structure for type `Component`.

.....
.....
.....
.....
.....
.....
.....
..... [4]

(ii) A 1D array `Item` of 2000 elements will store the data for all items.

Write pseudocode to declare the `Item` array.

.....
..... [2]

(b) State **three** benefits of using an array of records to store the data for all items.

1
.....
2
.....
3
.....