

[6]

2. Nov/2021/Paper_21/No.2(b)

(b) The pseudocode for this algorithm could be shortened by the use of a FOR ... NEXT loop.

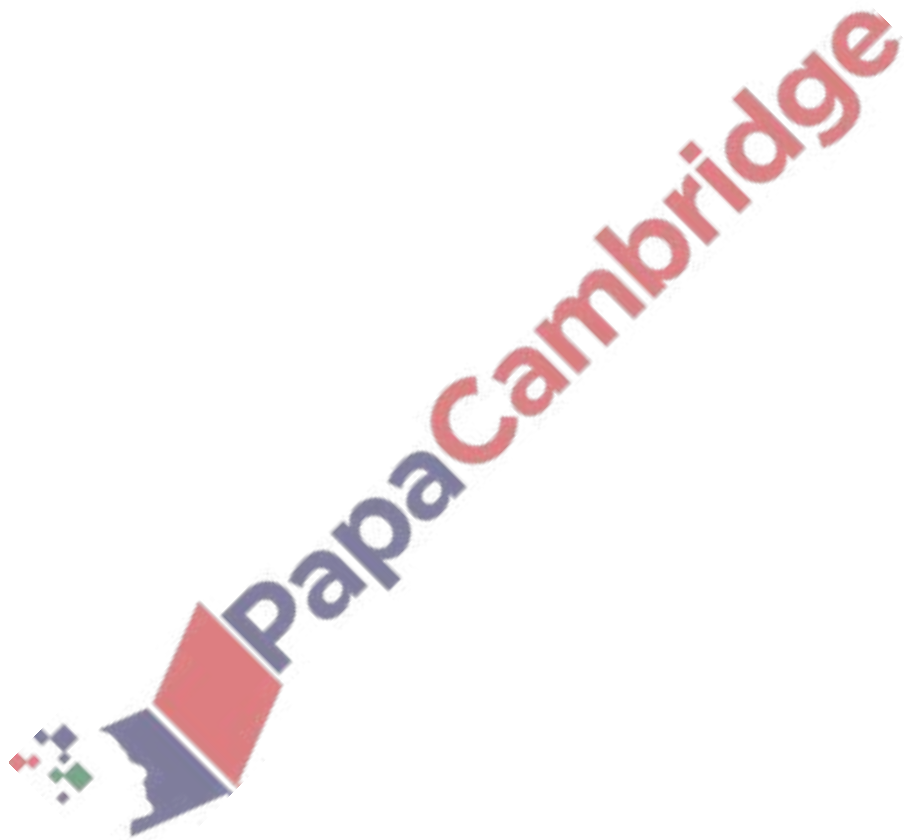
Rewrite the algorithm using a FOR ... NEXT loop.

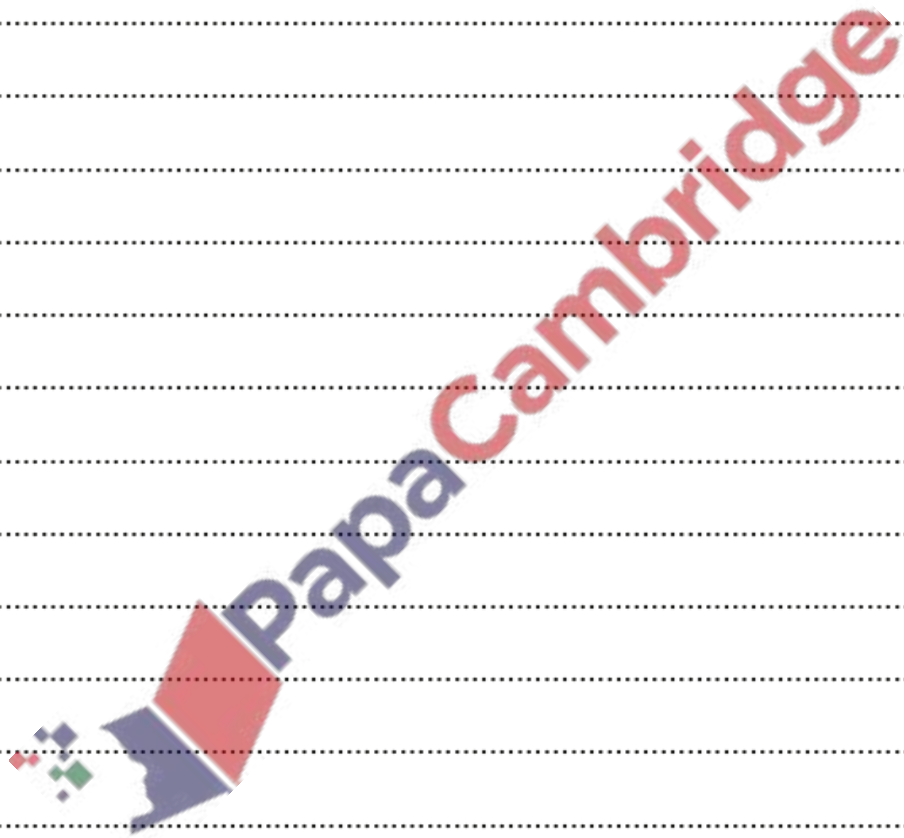
.....

.....

.....

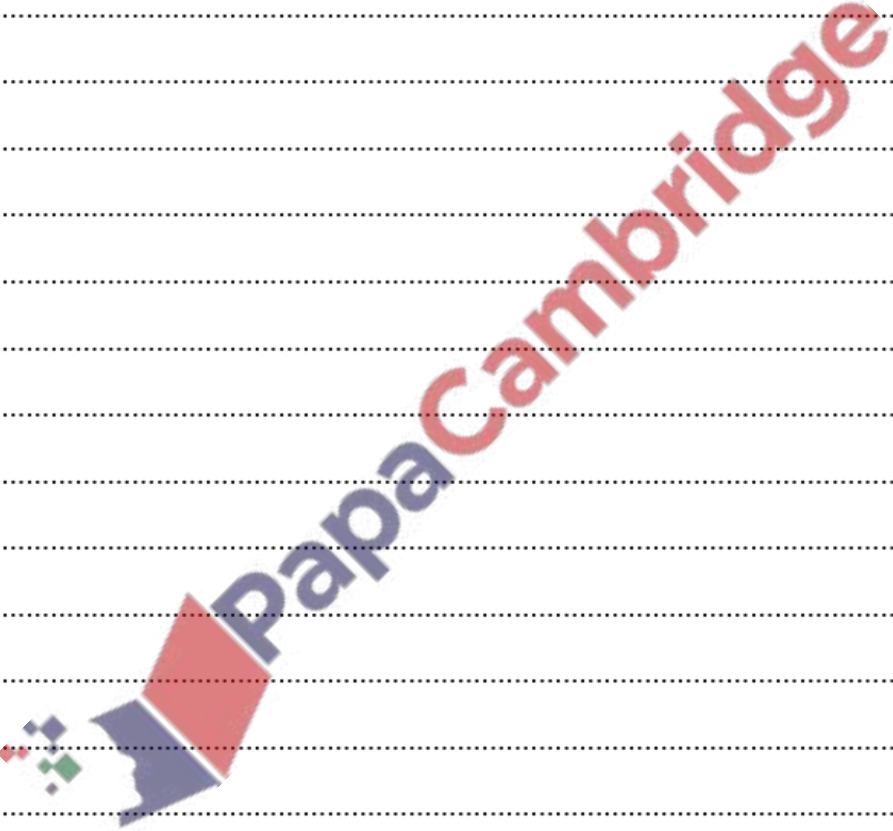
..... [3]





(d) Explain how your program could be changed to count and store the number of bookings made by each passenger. Then, after ten bookings have been made by a passenger, apply an additional 10% discount to every future booking. Any programming statements used in your answer must be fully explained.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....



4. Nov/2021/Paper_22/No.4(b)

(b) The algorithm needs changing to allow only the numbers 1, 2, 3, or 4 to be entered for the input variable `Operator`.

Write the pseudocode to perform this task and state where in the algorithm it would be located.

Pseudocode

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

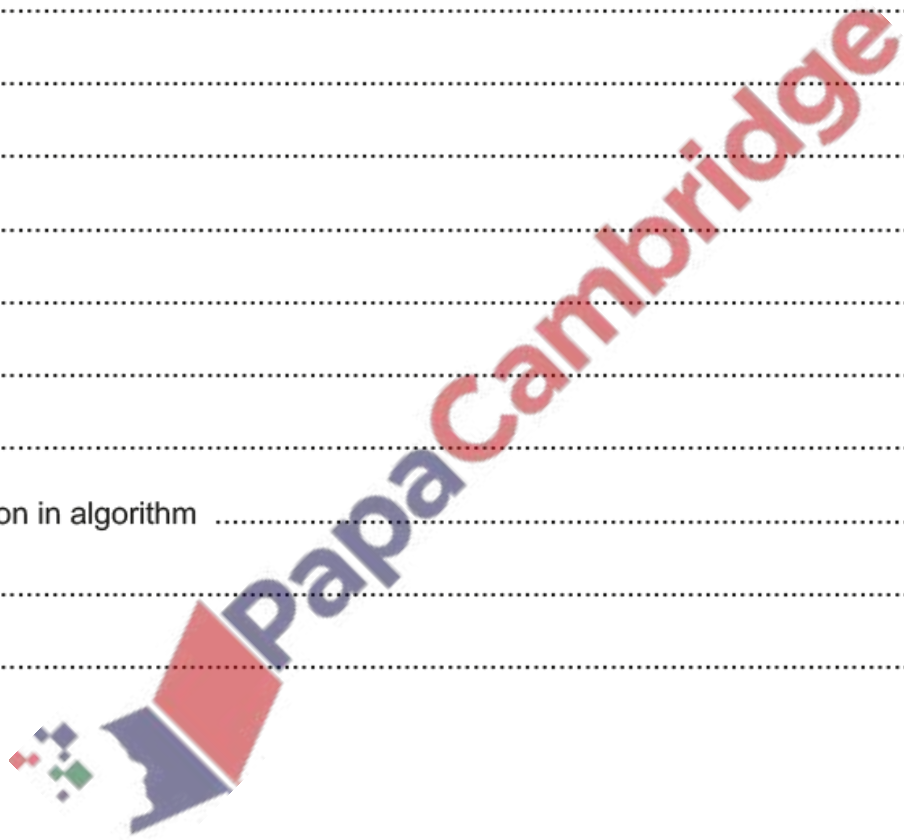
.....

.....

Location in algorithm

.....

.....



[5]

(d) Part of **Task 2** is to check if a table is available. Write an algorithm to do this, using either pseudocode, programming statements or a flowchart. Assume that **Task 1** has been completed.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

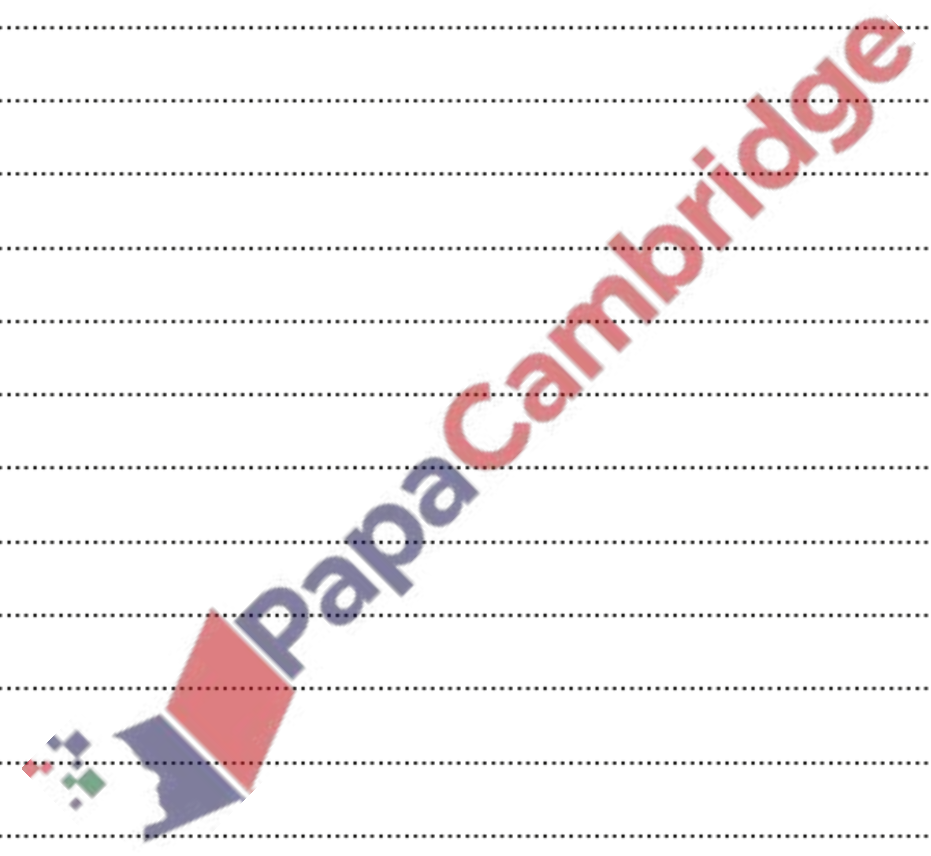
.....

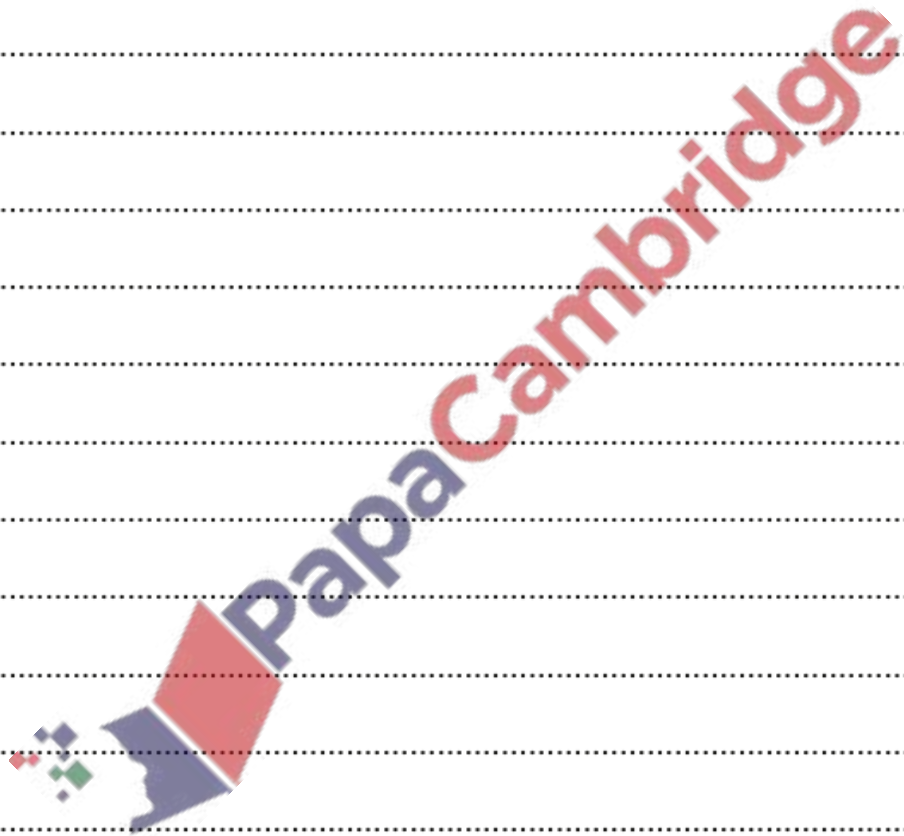
.....

.....

.....

.....





6. Nov/2021/Paper_23/No.2(b)

(b) The pseudocode for this algorithm could be shortened by the use of a FOR ... NEXT loop.

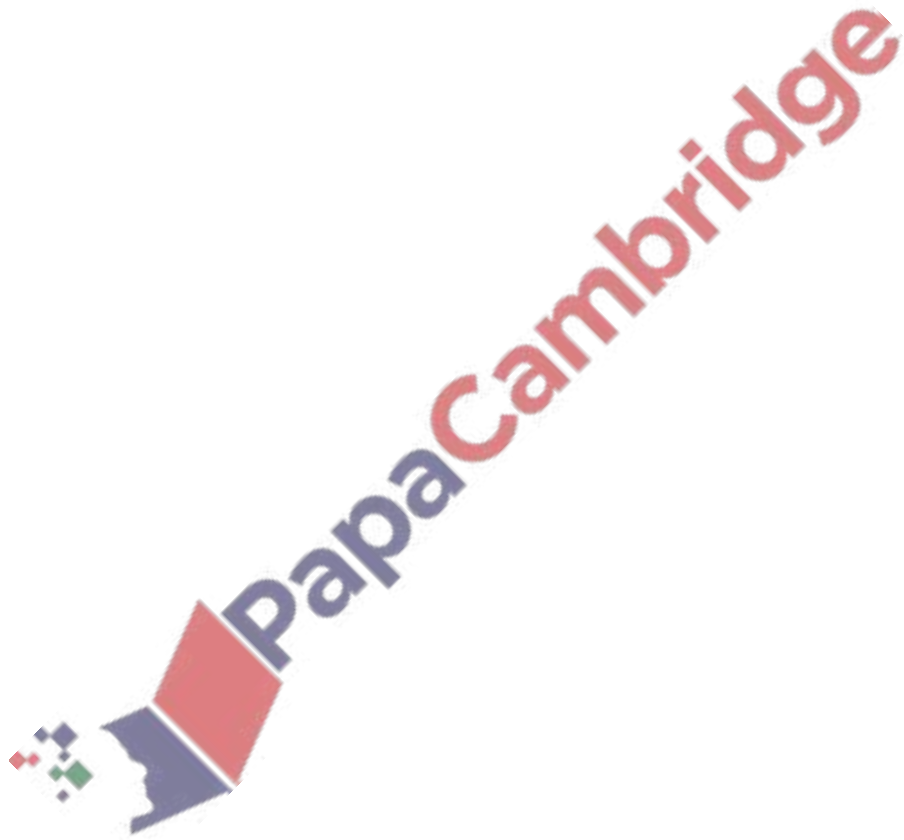
Rewrite the algorithm using a FOR ... NEXT loop.

.....

.....

.....

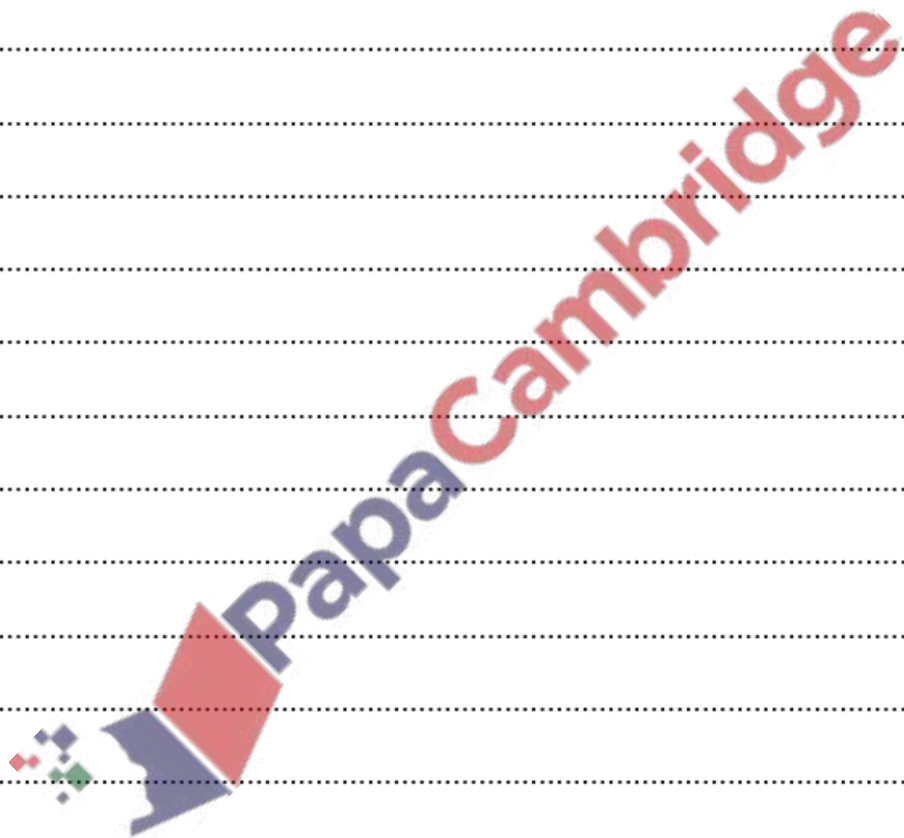
..... [3]

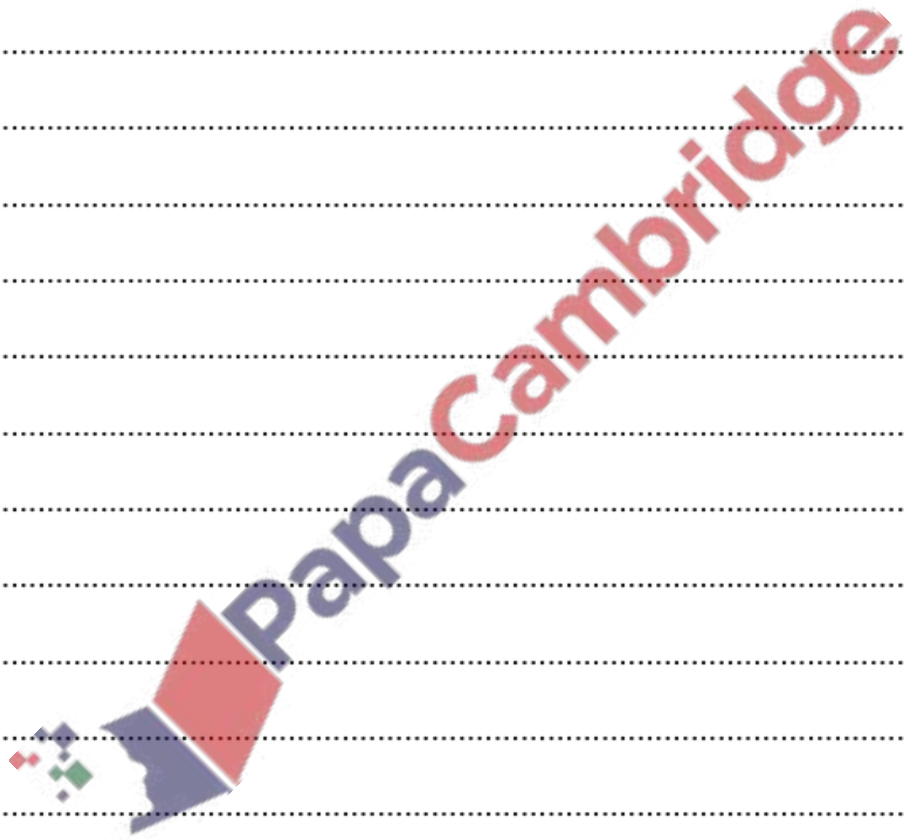


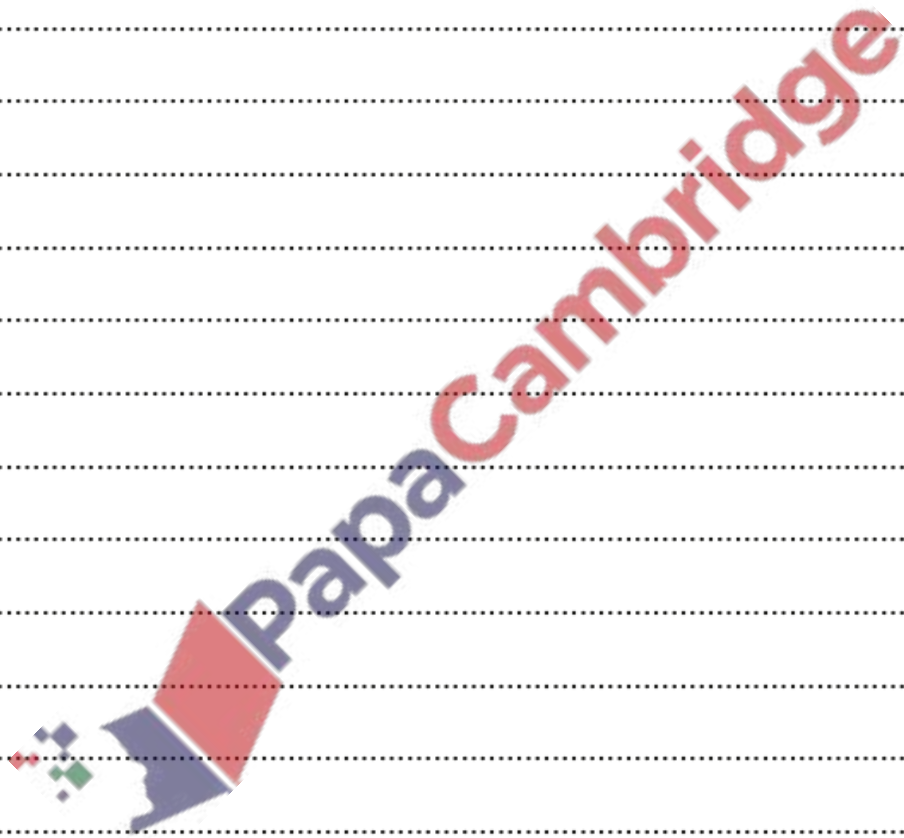
7. **March/2021/Paper_22/No.1(c)**

(c) Write an algorithm for **Task 1**, using **either** pseudocode, programming statements **or** a flowchart.

A series of horizontal dotted lines for writing the algorithm.







- (c) Write an algorithm for the part of **Task 2** that inputs the tickets required, calculates the total price for the ticket(s) purchased by a passenger including a group discount (if applicable) and updates the data structures used for the totals.
Use **either** pseudocode, programming statements **or** a flowchart.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

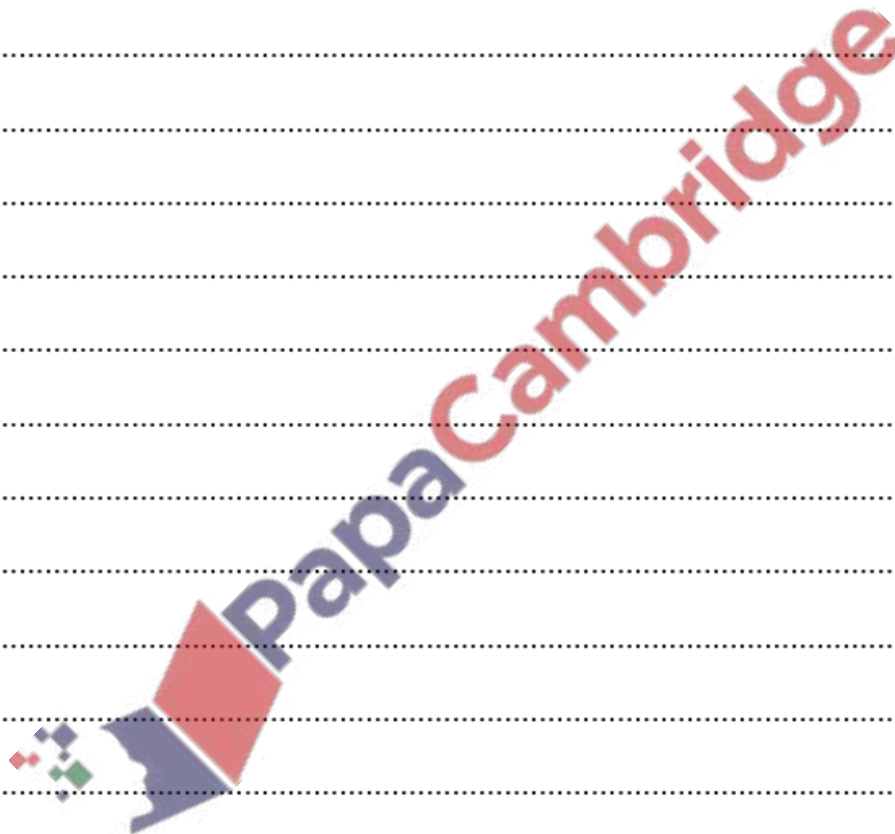
.....

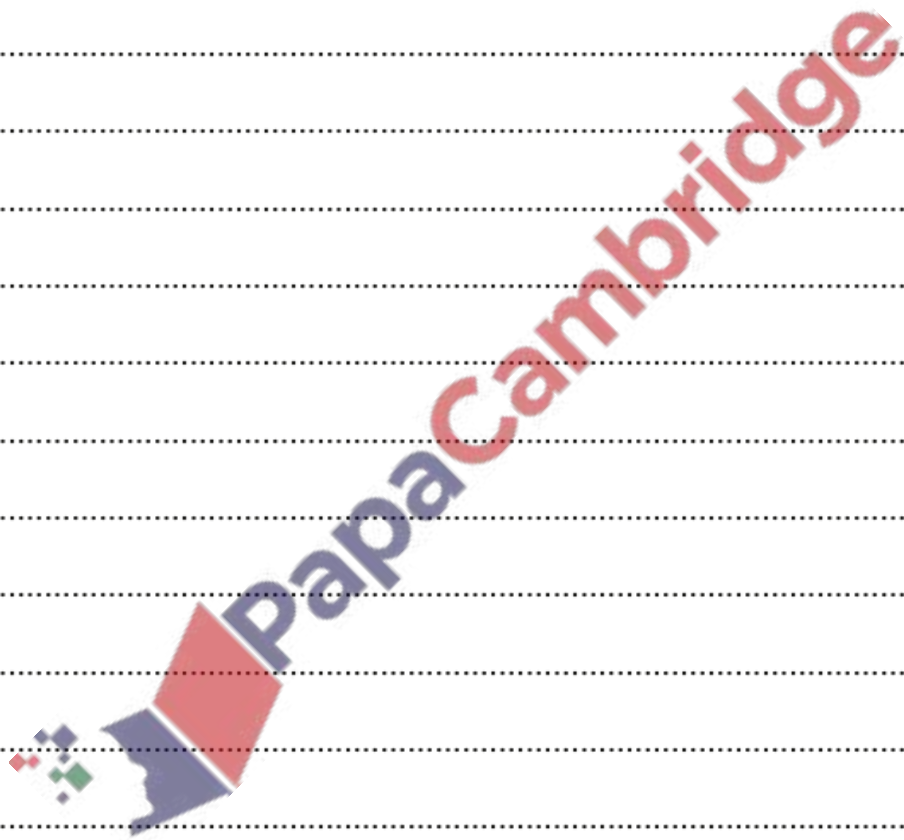
.....

.....

.....

.....

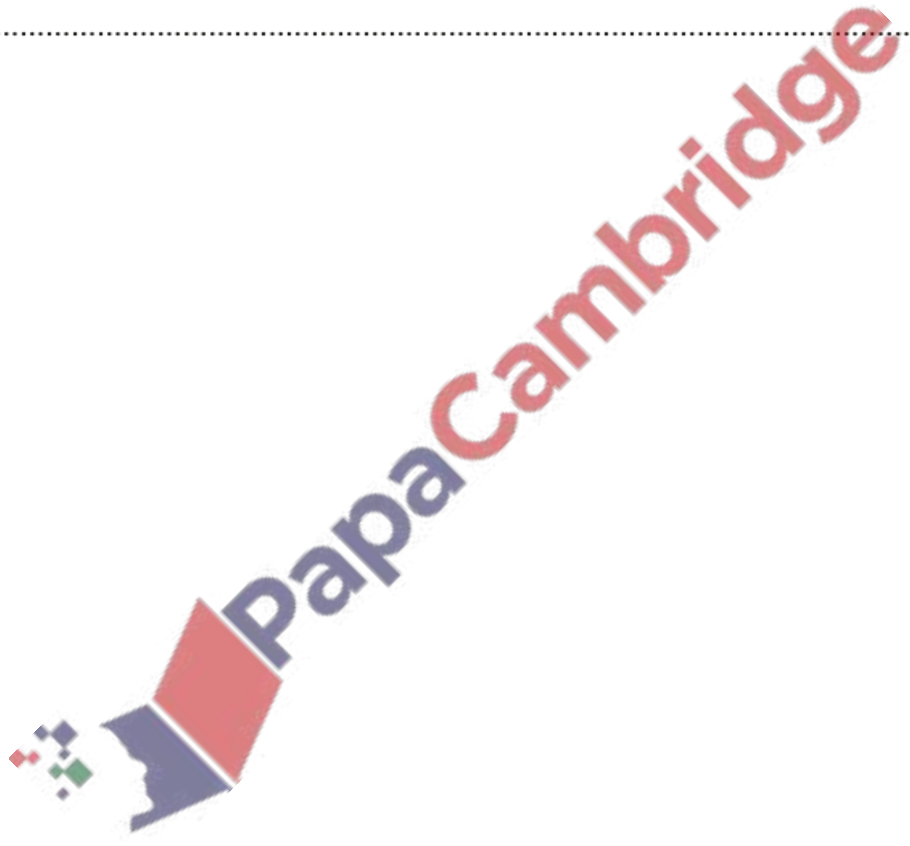




..... [6]

(b) Describe how the algorithm could be changed to make testing less time-consuming.

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



12. June/2021/Paper_22/No.5

A one-dimensional array `dataArray[1:20]` needs each element set to zero.

- (a) Write a pseudocode routine that sets each element to zero. Use the most suitable loop structure.

.....
.....
.....
.....
.....
.....
.....
.....
..... [3]

- (b) Explain why you chose this loop structure.

.....
..... [1]

