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**Department of Computer Science**  
**Level: 2nd Year LMD Computer Science**  
**Course: Algorithms and Data Structures 03**  
**Lab Work No. 3**  
**(Circular Singly Linked List)**

Let a list of Products be defined as follows:

```
typedef struct Product {
    int ID;
    char Name[20];
    int Price;
}Product;
```

and the list has the following structure:

```
typedef struct Node {
    Product Prod;
    struct Node *next;
}Node;
```

Q1. Write a function to create an empty circular singly linked list and a function to check if the list is empty.

Q2. Write functions to insert a new product:

- at the beginning of the circular list,
- at the end of the circular list.

Q3. Write a function to display all products in the circular list, making sure to traverse the list only once without infinite looping.