

i) #include <iostream>

using namespace std;

void merge (int a[], int sa, int b[], int sb)

```
{
    int h=0;
    for (int i=(sb-sa-1); i<sb; i++)
    {
        b[i] = a[h];
        h++;
    }
}
```

void decomp (int a[], int sa)

```
{
    for (int i=0; i<sa; i++)
    {
        for (int j=2; j<a[i]/2; j++)
        {
            if (a[i]%j == 0)
            {

```

② #include <iostream>

Class linkedlist

```
{ node* getHead()
  { return head;
  }
};
```

int main()

```
{ linkedlist a;
  linkedlist b;
  linkedlist c;

  node* A = a.getHead();
  node* B = b.getHead();

  while (! (A == NULL))
  { if (A->data % 2 != 0)
    { c.add_node(A->data);
    }
    A = A->next;
  }

  while (! (B == NULL))
  { if (B->data % 2 == 0)
    { c.add_node(B->data);
    }
    B = B->next;
  }

  a.deletelist();
  b.deletelist();
  c.deletelist();
}
```

③ class linkedlist

```
{  
    int listSize()  
    {  
        Node* temp = head;  
        int c = 0;  
        while (!(temp == Null))  
        {  
            c++;  
            temp = temp->next;  
        }  
        return c;  
    }  
}
```

```
void pal()  
{  
    bool a = true;  
    int size = listSize();  
    int n = size/2;  
    for (int i = 0; i < n; i++)  
    {  
        if  
        {  
            Node* temp1 = head;  
            Node* temp2 = tail;  
            for (int i = 0; i < n; i++)  
            {  
                if (temp1->data != temp2->data)  
                {  
                    return false;  
                }  
                a = false;  
                temp1 = temp1->next;  
                temp2 = temp2->Prev;  
            }  
            return a;  
        }  
    }  
}
```

};

int main()

{
 bool p = pal();

 if (P == true)

 { cout << "Is palindrome ";
 }

 else { cout << "Is not palindrome "; }

}