Date: / /

Lab Program 7:

```
void display (struct node *temp) {
    if (temp == NULL)
        printf ("List is empty\n");
    else {
        while (temp != NULL) {
        printf ("%d\t", temp->data);
        temp = temp->next;
        }
    printf ("\n");
    }
}
void sort (struct node *temp) {
    struct node *p, *q;
    int a;
    for (p=temp; p!=NULL; p=p->next) {
        for (q = p->next; q != NULL; q = q->next) {
            if (p->data > q->data) {
                a = p->data;
                p->data = q->data;
                q->data = a;
            }
        }
    }
printf ("The sorted list is as follows:");
while (temp != NULL) {
    printf ("%d\t", temp->data);
    temp = temp->next;
}
printf ("\n");
}
```

→

```
void reverse ( struct node *temp) {
    struct node *first = NULL, *second, * third;
    second = temp;
    while (second != NULL) {
        third = second -> next;
        second -> next = first;
        first = second;
        second = third;
    }

    temp = first;
    printf (" After Reversal : \n");
    while (temp != NULL) {
        printf (" %d", temp->data);
        temp = temp->next;
    }
    printf("\n");
}
void concatenate ( struct node *temp1, struct node *temp2){
    if struct node *temp;
    temp = temp1;
    while (temp->next != NULL)
        temp = temp -> next;
    temp -> next = temp2;
    temp = temp1;
    printf (" After concatenation : ");
    while ( temp != NULL) {
        printf ( "%d \t", temp -> data );
        temp = temp->next;
    }
    printf ("\n");
}
}
```