5
```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
struct node
  { int sem;
    char name [50];
    char usn [50];
    struct node * next;
  };
struct node *head = NULL;
int c = 0;
void Insertbegining ()
  { struct node * newnode;
    int s;
    char a[50], b[50];
    printf("Enter your name:");
    scanf("%s", a);
    printf("Enter your usn:");
    scanf("%s", b);
    printf("Enter your semester");
    scanf("%d", &s);
    newnode = (struct node*) malloc (sizeof(struct
      node));
    newnode -> sem = s;
    strcpy (newnode -> name, a);
    strcpy (newnode -> usn, b);
    newnode -> next = head;
    head = newnode;
    c++;
    printf("Node Created\n");
  }
```

```
void Insertanyppos(int p)
{
  struct node *newnode;
  int s;
  char a[30], b[30];
  printf("Enter your name:");
  scanf("%s",a);
  printf("Enter your usn:");
  scanf("%s", b);
  printf("Enter your semester:");
  scanf("%d",&s);
  newnode = (struct node*) malloc (sizeof(struct node));
  newnode->sem = s;
  strcpy(newnode->name, a);
  strcpy(newnode->usn, b);
  if (p==1)
  {
    printf("Node of linked list is inserted in position one\n");
    newnode->next = head;
    head = newnode;
    c++;
  }
  else if (head == NULL && p>1)
  { printf("List is empty");
    return;
  }
  else if (p>(c+1))
  {
    printf("Not possible as number of nodes present is insufficient\n");
    return;
  }
```

```
else
  {
   struct node * temp1;
   struct node * temp2;
   int count=1;
   temp1 = head;
   while (count<(p-1))
     { temp1 = temp1->next;
       count++;
     }
   temp2 = temp1->next;
   temp1->next = newnode;
   newnode->next = temp2;
   c++;
   printf("Node inserted at %d position in
   linked list\n", p);
  }
}
void Insatend()
  {
   struct node *newnode;
   struct node * temp;
   int s;
   char n[30], u[30]
   printf("Enter your name:");
   scanf("%s", n);
   printf("Enter your usnster:");
   scanf("%d, &s");
   printf("Enter your usn:");
   scanf("%s", u);
   newnode = (struct node*) malloc(sizeof(
     struct node));
   newnode->usn = s;
```

```
strcpy(newnode->name, u);
strcpy(newnode->usn, v);
if(head==NULL)
  { newnode->next=NULL;
    head=newnode;
    printf("First node created\n");
    c++;
  }
else
  { temp=head;
    while(temp->next!=NULL)
      {
        temp=temp->next;
      }
    temp->next=newnode;
    newnode->next=NULL;
    c++;
    printf("Node created");
  }
}
void Display()
{ struct node *ptr;
  ptr=head;
  int i=1;
  if(ptr==NULL)
    { printf("Linked list is empty");
    }
  else
    { while(ptr!=NULL)
      { printf("Node %d", i);
        printf("Name %s\n usn %s\n sem %d",
        ptr->name, ptr->usn, ptr->sem);
```

```
    i++;
    ptr = ptr -> next; }}}
int main ()
{ int choice, pos;
  do {
      printf("\n1. Insert node at beginning\n2.
       Anywhere in the list\n3. At the end\n
       4. Display\n5. Exit\n");
      scanf("%d", &choice);
      if (choice == 5)
        break;
      switch (choice)
        {
          case 1; Insertbegining ();
                  break;
          case 2: printf("Enter the position");
                  scanf("%d", &pos);
                  Insertanypos(pos);
                  break;
          case 3: Insertend();
                  break;
          case 4:
                  display();
                  break;
          default:
                  printf("Wrong choice!\n");
                  break;
        }
  } while (choice != 5);
  return 0;
}
```