5) Topological Sort

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
int indegree[20],t[20],a[20][20],n;
void t_sort()
{
   int top=-1,k=0,i,j,sum=0,s[20],u,v;
   for(j=1;j<=n;j++)
   {
      sum=0;
      for(i=1;i<=n;i++)
      {
         sum+=a[i][j];
      }
      indegree[j]=sum;
   }
      for(i=1;i<n;i++)
      {
        if(indegree[i]==0){
         top=top+1;
         s[top]=i;
      }
      }

   while(top!=-1)
   {
```

```
      u=s[top];
      top=top-1;
      t[k++]=u;
      for(v=1;v<=n;v++)
      {
        if(a[u][v]==1)
        {
          indegree[v]--;
          if(indegree[v]==0)
          {
            top++;
            s[top]=v;
          }
        }
      }
    }

    printf("\n toplogical sequence is :\n");
    for(i=0;i<k;i++)
    {
      printf("%d\t",t[i]);
    }
}
void main()
{
    int i,j;
    printf("enter the value of n\n");
    scanf("%d",&n);
```

```
    printf("enter the adjacency matrix\n");
    for(i=1;i<=n;i++){
       for(j=1;j<=n;j++){
          scanf("%d",&a[i][j]);
    }
    }
    t_sort();
}
```