WEEK 2

2. Write program to obtain the Topological ordering of vertices in a given digraph.

CODE:

```
#include<stdio.h>
#include<conio.h>



void main(){
   int a[10][10],n,i,j;
   int indeg[10],flag[10],c=0;

   printf("Enter number of vertices \n");
   scanf("%d",&n);

   printf("Enter adjacency matrix: \n");
   for(i=0;i<n;i++)
   for(j=0;j<n;j++)
   scanf("%d",&a[i][j]);

   for(i=0;i<n;i++)
   indeg[i]=0;

   for(i=0;i<n;i++)
```

```
flag[i]=0;

for(i=0;i<n;i++)
for(j=0;j<n;j++)
if(a[i][j]==1)
indeg[j]+=1;

printf("Order is : ");
while(c<=n)
{
   for(i=0;i<n;i++)
   {
      if(indeg[i]==0 && flag[i]==0)
      {
         printf("%d  ",i+1);
         flag[i]=1;
      }
   }
   for(i=0;i<n;i++)
   {
      if(flag[i]==1)
      {
         for(j=0;j<n;j++)
         {
            if(a[i][j]==1)
            {
```

```
                indeg[j]-=1;
                a[i][j]=0;
            }
          }
        }
      }
      c++;
    }
}
```

OUTPUT :