```
#include <iostream.h>
const   int max=1201;
void readfile(int c[max][max], int &n);
int  selectnextcity(int c[max][max], int n, int i);
void GTS1(int c[max][max], int n, int starcity);
void GTS2(int c[max][max], int n);

int     c[max][max];
int     *visit,*tour,n,cost;
int v[max],p;
int main()
{
readfile(c,n);
GTS2(c,n);
}

void readfile(int c[max][max], int &n)
{
FILE *f;
f=fopen("gts2.txt","rt");
fscanf(f,"%d%d",&n, &p);
for (int i=1;i<=p;i++)
fscanf(f,"%d",&v[i]);
for (int i=1;i<=n;i++)
for (int j=1;j<=n;j++)
fscanf(f,"%d",&c[i][j]);
fclose(f);
}

int selectnextcity(int c[max][max], int n,int i)
{
int m,min=INT_MAX;
for (int j=1;j<=n;j++)
if (visit[j]==0 && c[i][j]<min)
        {
         min=c[i][j];
         m=j;
        }
return m;
}

void GTS1(int c[max][max], int n, int starcity)
{
        visit=(int*)calloc(sizeof(int),max);
        tour=(int*)calloc(sizeof(int),max);
        cost=0;
        int w,d=1;
        tour[d]=starcity;
        visit[starcity]=1;
        int currentcity=starcity;
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```
        for (int i=1;i<=n;i++)
        {
                w=selectnextcity(c,n,currentcity);
                tour[++d]=w;
                visit[w]=1;
                cost+=c[currentcity][w];
                currentcity=w;
        }
        cost+=c[currentcity][starcity];
}

void GTS2(int c[max][max], int n)
{
        int costbest=INT_MAX;
        int *tourbest;
        cost=0;

        for (int k=1;k<=p;k++)
        {
        GTS1(c,n,v[k]);//GTS1(c,n,v[k]);
        if (cost<costbest)
                {
                        costbest=cost;
                        tourbest=tour;
                }
        }

cout<<"result GTS2: "<<endl<<costbest<<endl;
}
```