```c
#include<stdio.h>
#include<conio.h>
int sum=0;

int max(int a,int b)
{
    if(a>b)
        return a;
    else
        return b;
}

void knapsack(int m,int n,int w[],int p[])
{
    int v[100][200],x[10],i,j;

    for(i=0;i<=m;i++)
    v[0][i]=0;

    for(i=1;i<=n;i++)
    {
        for(j=0;j<=m;j++)
        {
            if(j>=w[i])
                v[i][j]=max(v[i-1][j],v[i-1][j-w[i]]+p[i]);
            else
                v[i][j]=v[i-1][j];
        }
    }

    for(i=1;i<=n;i++)
        x[i]=0;

    i=n;
    j=m;

    while(i>0 && j>0)
    {
        if(v[i][j]!=v[i-1][j])
        {
            x[i]=1;
            j=j-w[i];
        }
        i--;
    }

    printf("\nOptimal Set of Items in Knapsack:\n");
    printf("Items\tCount\n");

    for(i=1;i<=n;i++)
    {
        if(x[i]==1)
        {
            printf("Item %d=\t1\n",i);
            sum=sum+p[i];
        }
        else
        printf("Item %d=\t0\n",i);
    }

    printf("\nTotal value: %d",sum);

    printf("\nThe Knapsack Array: \n");
    for(i=0;i<=m;i++)
    {
        for(j=0;j<=n;j++)
```

```
        {
            printf("%d\t", v[j][i]);
        }
        printf("\n");
    }

}

int main()
{
    int w[10],p[10],i,m,n;


    printf("Number of Items: ");
    scanf("%d",&n);

    printf("Enter the Weight of Items:\n");
    for(i=1;i<=n;i++)
        scanf("%d",&w[i]);

    printf("Enter Value of Items:\n");
    for(i=1;i<=n;i++)
        scanf("%d",&p[i]);

    printf("Capacity of Knapsack: ");
    scanf("%d",&m);

    knapsack(m,n,w,p);
    getch();

    return 0;
}
```