**Practical:-7**

* Implement Program for “Making Change” using Greedy design technique

Code:-

#include <stdio.h>

int C[]={1,5,10,25,100};

void make\_change(int n); '

int bestsol(int,int);

void main()

{

int n;

printf("\n  ");

printf("\n  MAKING CHANGE USING GREEDY ALGORITHM    ");

printf("\n  ");

printf("\n Enter amount you want:");

scanf("%d",&n);

make\_change(n);

}

void make\_change(int n)

{

int S[100],s=0,x,ind=0,i;

printf("\n----------------AVAILABLE COINS   \n");

for(i=0;i<= 4;i++)

printf("%5d",C[i]);

printf("\n  ");

while(s!=n)

{

x=bestsol(s,n);

if(x==-1)

{}

else

{

S[ind++]=x;

s=s+x;

}

}

printf("\n-------------MAKING CHANGE FOR %4d    ",n);

for(i=0;i < ind;i++)

{

printf("\n%5d",S[i]);

}

printf("\n  ");

}

int bestsol(int s,int n)

{

int i;

for(i=4;i>-1;i--)

{

if((s+C[i]) <= n) return C[i] ;

}

return -1;

}

Output:-

