Assignment No.2

Q1.Find the price of item when discount is given (specify different discount based on price)

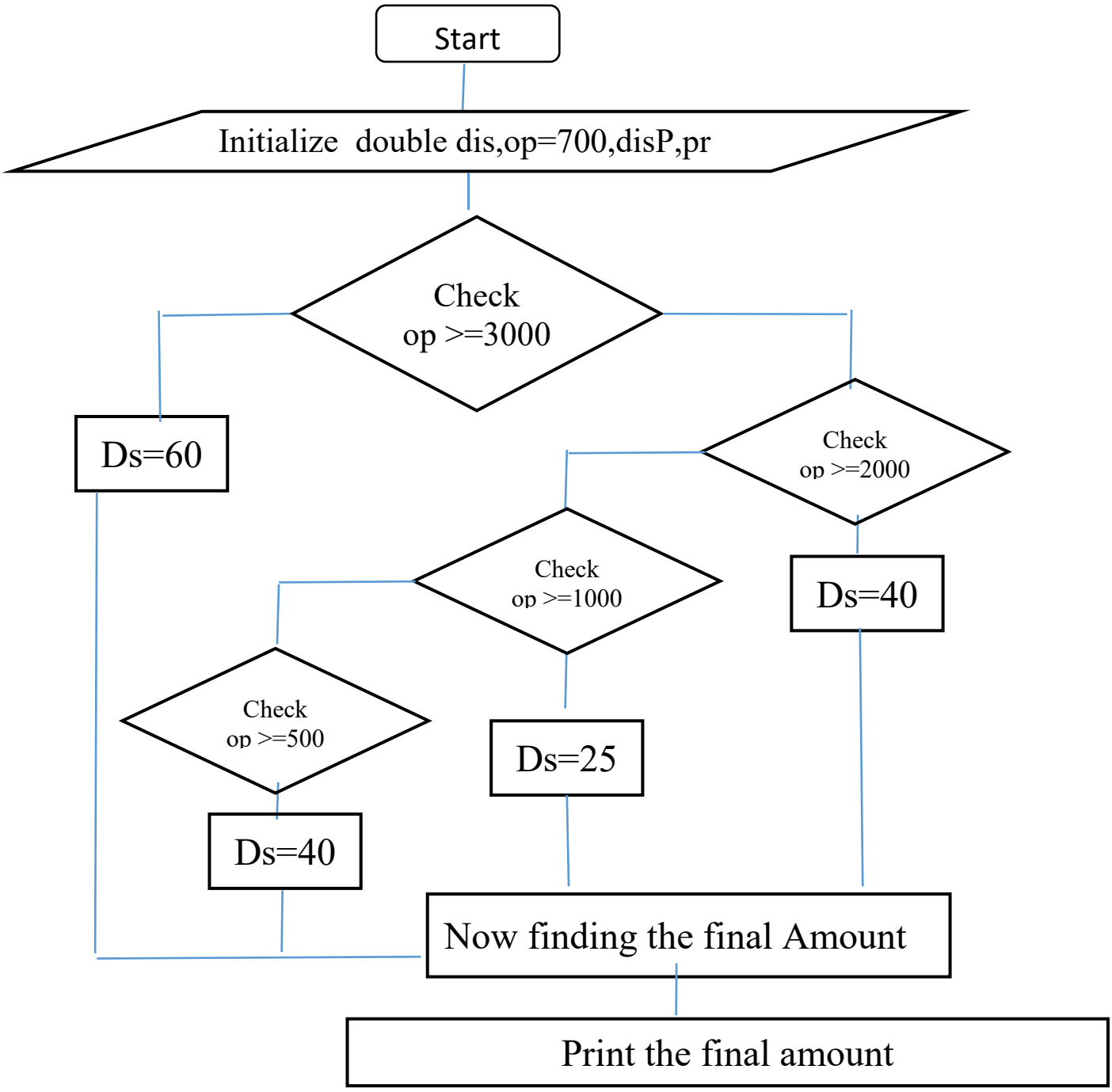
Code:-

```
#include<stdio.h>
void main(){
   double dis,op=700,disP,pr;
       if(op>=3000){
              dis= 60;
       disP=op*(dis/100);
       pr=op-disP;
       }
   else{
       if(op>=2000){
                     dis= 40;
              disP=op*(dis/100);
              pr=op-disP;}
       else{
              if(op>=1000){
                            dis= 25;
                     disP=op*(dis/100);
                     pr=op-disP;
                     }
                     else{
                     if(op>=500){
                                   dis= 15;
                            disP=op*(dis/100);
                            pr=op-disP;
                            }
                     else{
                            if(op<500){
                            printf("No discount on this product. This is orignal price ");
                                   }}}}}

       printf("Price of product = %2f rs \n and given discount is %2f = %2f rs \n
Origanal Price = %2f",pr,dis,disP,op);
       }
```

Algorithm:-

Step1:- Start
Step2:- Initialize double dis,op=700,disP,pr
Step3:- Check origanal price >=3000 then discount will be 60%.
Step4:- else then Check origanal price >=2000 then discount will be 40%.
Step5:- else Check origanal price >=1000 then discount will be 25%
Step6:- Check origanal price >=500 then discount will be 15%.
Step7:- Check origanal price <500 then no discount
Step8:- Price of product and given discount and Origanal Price
Step7:- End

Flowchart :-



Assignment No.2

Q2.Write a program to find greatest of three numbers using nested if-else.

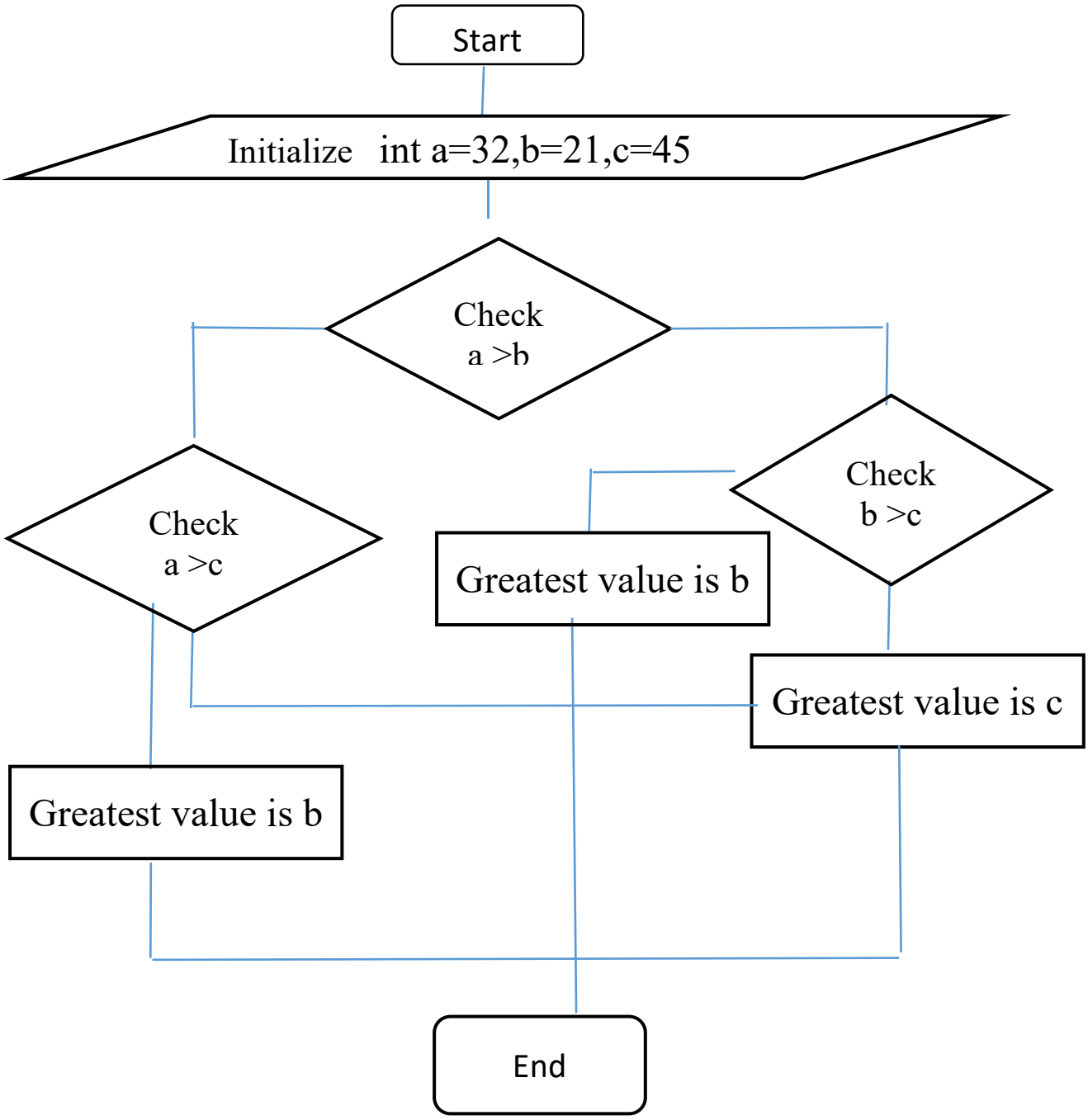
Code:-

```
#include<stdio.h>

void main(){
   int a=32,b=21,c=45;


   printf("Greatest number is %d \n",(a>b)?(a>c)?a:c:(b>c)?b:c);
}
```

Algorithm:-

Step1:- Start
Step2:- Initialize int a=32,b=21,c=45;
Step3:- Check a >b then Check a >c then a is greatest else then c is greatest .
Step4:- else then Check b >c then b is greatest else then c is greatest .
Step5:- Print a greatest number
Step6:- End

Flowchart :-


Start
Initialize int a=32,b=21,c=45
Check
a >b
Check
a >c
Check
b >c
Greatest value is b
Greatest value is c
Greatest value is b
End

Assignment No.2

Q1.Find the price of item when discount is given (specify different discount based on price)

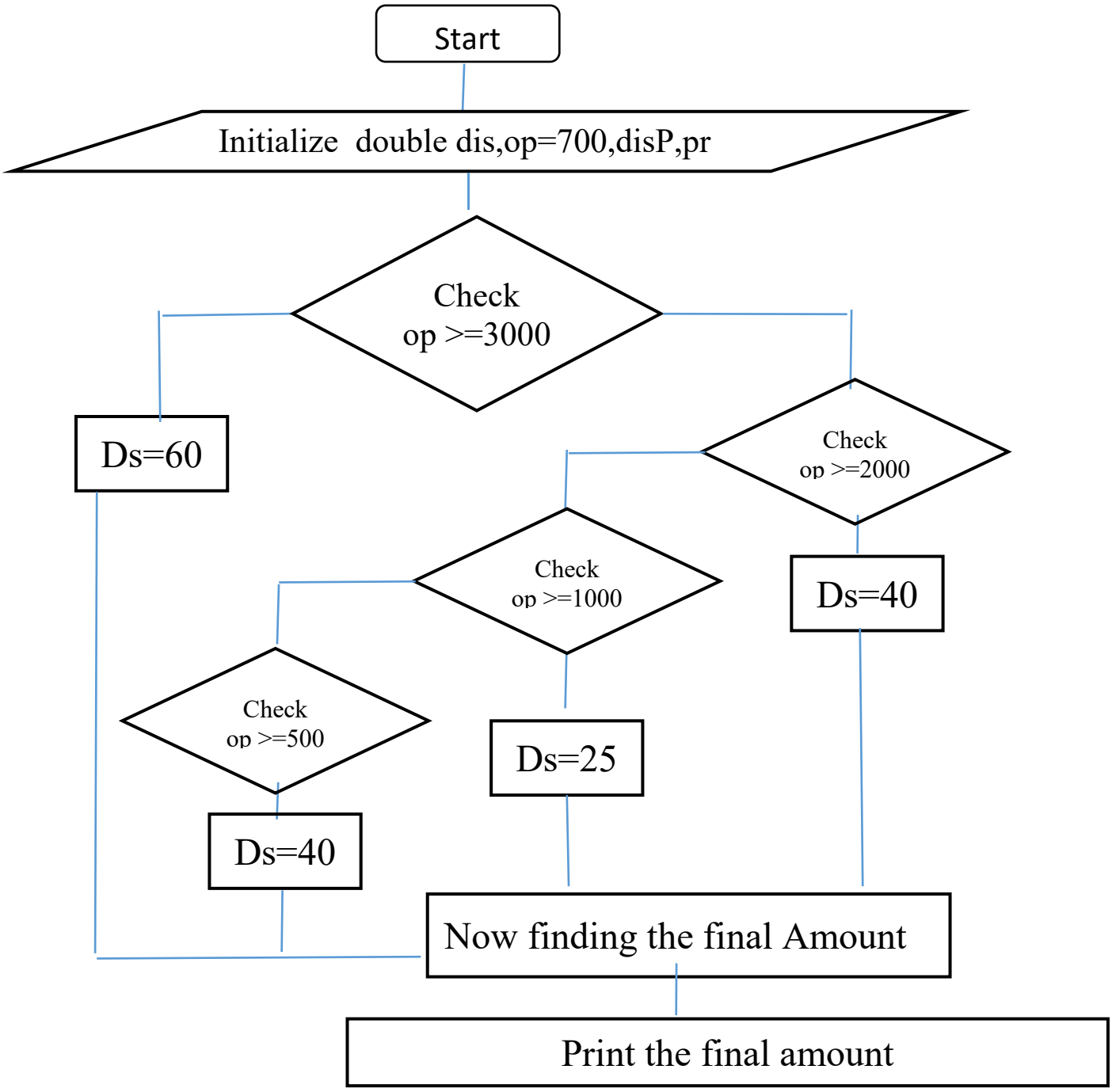
Code:-

```
#include<stdio.h>
void main(){
   double dis,op=700,disP,pr;
       if(op>=3000){
              dis= 60;
       disP=op*(dis/100);
       pr=op-disP;
       }
   else{
       if(op>=2000){
                     dis= 40;
              disP=op*(dis/100);
              pr=op-disP;}
       else{
              if(op>=1000){
                            dis= 25;
                     disP=op*(dis/100);
                     pr=op-disP;
                     }
                     else{
                     if(op>=500){
                                   dis= 15;
                            disP=op*(dis/100);
                            pr=op-disP;
                            }
                     else{
                            if(op<500){
                            printf("No discount on this product. This is orignal price ");
                                   }}}}}

       printf("Price of product = %2f rs \n and given discount is %2f = %2f rs \n
Origanal Price = %2f",pr,dis,disP,op);
       }
```

Algorithm:-

Step1:- Start
Step2:- Initialize double dis,op=700,disP,pr
Step3:- Check origanal price >=3000 then discount will be 60%.
Step4:- else then Check origanal price >=2000 then discount will be 40%.
Step5:- else Check origanal price >=1000 then discount will be 25%
Step6:- Check origanal price >=500 then discount will be 15%.
Step7:- Check origanal price <500 then no discount
Step8:- Price of product and given discount and Origanal Price
Step7:- End

Flowchart :-



Assignment No.2

Q2.Write a program to find greatest of three numbers using nested if-else.

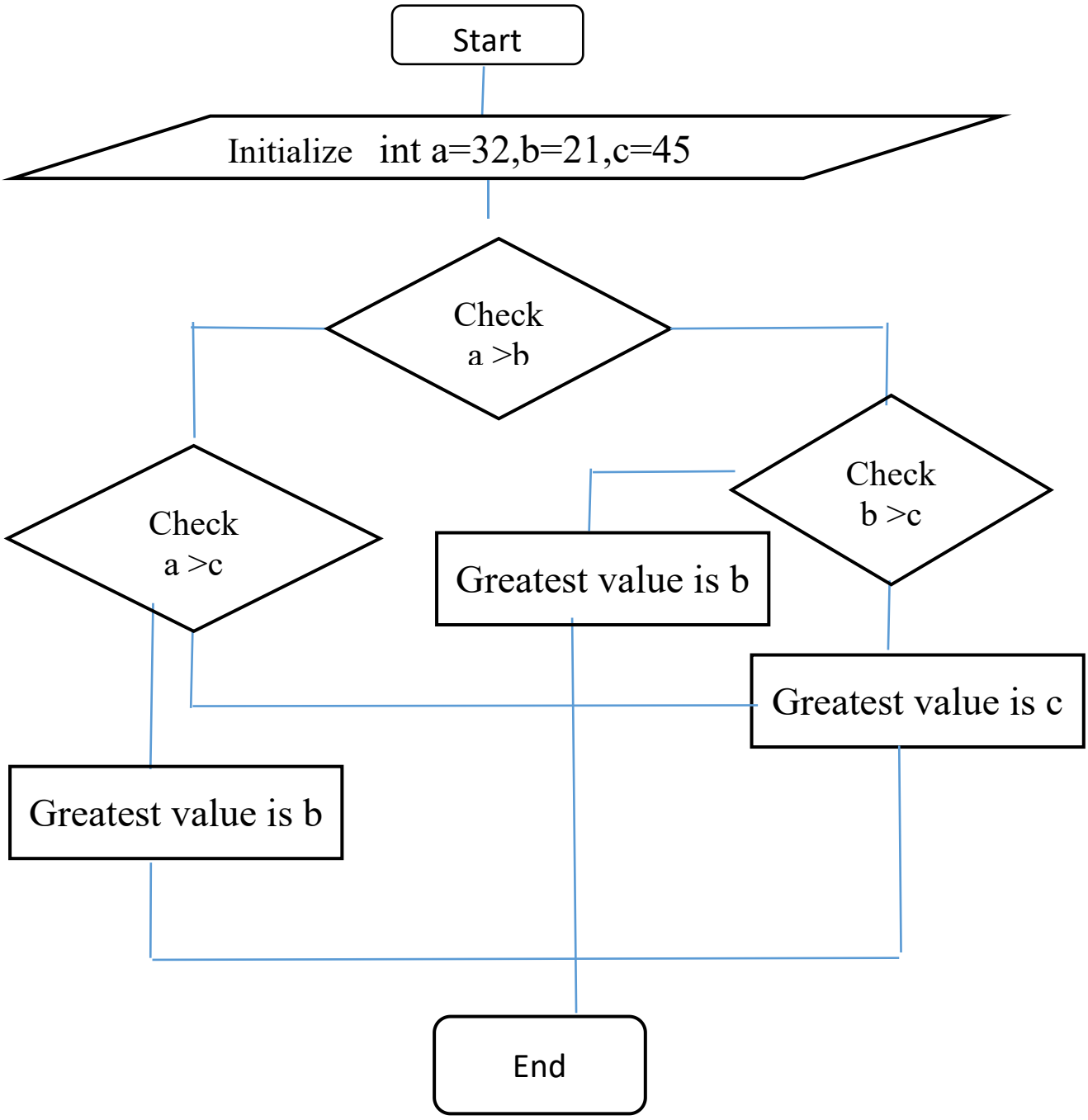
Code:-

```
#include<stdio.h>

void main(){
   int a=32,b=21,c=45;


   printf("Greatest number is %d \n",(a>b)?(a>c)?a:c:(b>c)?b:c);
}
```

Algorithm:-

Step1:- Start
Step2:- Initialize int a=32,b=21,c=45;
Step3:- Check a >b then Check a >c then a is greatest else then c is greatest .
Step4:- else then Check b >c then b is greatest else then c is greatest .
Step5:- Print a greatest number
Step6:- End

Flowchart :-


Start
Initialize int a=32,b=21,c=45
Check
a >b
Check
a >c
Check
b >c
Greatest value is b
Greatest value is c
Greatest value is b
End

Q3.Accept two numbers from user and an operator (+,-,/,*,%) based on that perform the desiredoperations.

Code:-

```
#include <stdio.h>

int main() {
   char op = '*';
   int n1 = 10, n2 = 20, x;

   if (op == '+') {
      x = n1 + n2;
   }
   else if (op == '-') {
      x = n1 - n2;
   }
   else if (op == '*') {
      x = n1 * n2;
   }
   else if (op == '/') {
      if (n2 != 0) {
         x = n1 / n2;
      } else {
         printf("Division by zero is not allowed.\n");
         return 1;
      } }
   else if (op == '%') {
      if (n2 != 0) {
         x = n1 % n2;
      } else {
         printf("Division by zero is not allowed.\n");
         return 1;
      } }
   else {
      printf("Invalid operator\n");
      return 1;
   }

   printf("Solution is = %d \n and given Operation is %c\n", x, op);
   return 0;}
```

Q4.Display a menu to the user (like 1.Even Odd 2. Basic salary etc), ask the user to enter his choice,then based on that perform the desired operations.

Code:-

```
#include <stdio.h>
int main() {
   int ch = 1;
   if (ch == 1) {
      int num=21;
       if(num%2==0){
              printf("This is Even number = %d \n",num);
              }
       else{
              printf("This is Odd number = %d \n",num);
              } }
   else if (ch==2) {
              double bs=7000;
              double da,ta,hra,ts;
              if(bs<=5000){
                     da=bs*0.10;
                     ta=bs*0.20;
                     hra=bs*0.25;
                     }
              else{
                     da=bs*0.15;
                     ta=bs*0.25;
                     hra=bs*0.30;
                     }
                     ts=bs+da+ta+hra;
                     printf("Total salary is %2f \n and their salary is %2f \n and da is %2f,\n ta is %2f,\n hra is %2f ",ts,bs,da,ta,hra);
       }
   else {
       printf("Wrong Choice ");
       }
   return 0;
}
```

Q5.Accept the price from user. Ask the user if he is a student (user may say yes or no). If he is a student and he has purchased more than 500 than discount is 20% otherwise discount is 10%.But if he is not a student then if he has purchased more than 600 discount is 15% otherwise there is not discount

Code:-

```
#include <stdio.h>

int main() {
   char op = 's';
   int pr=789,fp;
   float dis;

   if (op == 's') {
      if (pr>500) {
       dis = 0.20;
              }
       else{
       dis = 0.10;
       }
       }
   else{
      if (pr>600) {
       dis = 0.15;
              }
       else{
       printf("No discount");
       }
   }


       fp=pr-(pr*dis);

   printf("Total Price = %d \n and given discount is %f \n So final price is :", pr,dis);
   (dis>0)?printf("%d",fp):printf("%d",pr);
   return 0;
}
```