If else (13- 21)

13.
```
#include<stdio.h>
int main()
{
   int gam,notes;
   printf("Input the amount :  ");
   scanf("%d",&gam);
   notes=gam/1000;
   gam=gam%1000;
   printf("note of 1000 = %d\n",notes);
   notes=gam/500;
   gam=gam%500;
   printf("note of 500 = %d\n",notes);
   notes=gam/100;
   gam=gam%100;
   printf("note of 100 = %d\n",notes);
   notes=gam/50;
   gam=gam%50;
   printf("note of 50 = %d\n",notes);
   notes=gam/20;
   gam=gam%20;
   printf("note of 20 = %d\n",notes);
   notes=gam/10;
   gam=gam%10;
   printf("note of 10 = %d\n",notes);
   notes=gam/5;
   gam=gam%5;
   printf("note of 5 = %d\n",notes);
   notes=gam/2;
   gam=gam%2;
   printf("note of 2 = %d\n",notes);
   printf("note of 1 = %d\n",notes);
   return 0;
}
```

14.
```
#include <stdio.h>
int main()
{
   int angle1, angle2, angle3, sum;
   printf("Enter three angles of triangle: \n");
   scanf("%d %d %d", &angle1, &angle2,
&angle3);
   sum = angle1 + angle2 + angle3;
   if(sum == 180 && angle1 != 0 && angle2 != 0
&& angle3 != 0)
   {
      printf("Triangle is valid.");
   }
   else
   {
      printf("Triangle is not valid.");
   }

   return 0;
}
```

15.
```
#include <stdio.h>

int main()
{
   int side1, side2, side3;



   printf("Enter three sides of triangle: \n");
   scanf("%d%d%d", &side1, &side2, &side3);

   if((side1 + side2) > side3 && side1 !=0 &&
side2 !=0 && side3 !=0)
   {
      if((side2 + side3) > side1)
      {
```

16.
```
#include <stdio.h>

int main()
{
   int side1, side2, side3;
   printf("Enter three sides of triangle: ");
   scanf("%d%d%d", &side1, &side2, &side3);

   if(side1==side2 && side2==side3)
   {
      printf("Equilateral triangle.");
   }
   else if(side1==side2 || side1==side3 ||
side2==side3)
   {
```

```
        if((side1 + side3) > side2)
        {

            printf("Triangle is valid.");
        }
        else
        {
            printf("Triangle is not valid.");
        }
      }
      else
      {
         printf("Triangle is not valid.");
      }
   }
   else
   {
      printf("Triangle is not valid.");
   }

   return 0;
}
```

```
      printf("Isosceles triangle.");
   }
   else if(side1 !=0 || side2 !=0 || side3 !=0)
   {
      printf("Scalene triangle.");
   }

   return 0;
}
```

17.

```
#include<stdio.h>
#include<math.h>
int main()
{
   double a,b,c,root1,root2;
   printf("Enter the value of a , b, c : ");
   scanf("%lf %lf %lf", &a, &b, &c);
   root1=(-b+ sqrt(b*b-4*a*c))/(2*a);
   root2=(-b-sqrt(b*b-4*a*c))/(2*a);
   if((b*b-4*a*c)>0)
     printf("REAL ROOT EXIST AND ROOT1 = %lf
ROOT2 =%lf\n", root1,root2);
   else if((b*b-4*a*c)==0)
      printf("REAL ROOT EXIST AND ROOT1 =
ROOT2 =%lf\n", root1);
   else if((b*b-4*a*c)<0)
      printf("REAL ROOT DOESN'T EXIST");
   return 0;
}
```

18.

```
#include<stdio.h>
int main()
{
   double a,b,pro,loss;
   printf("Enter cost and sell price : ");
   scanf("%lf %lf",&a,&b);
   if(b>a)
   {
      pro=b-a;
      printf("PROFIT = %lf\n",pro);
   }
   else if(a>b)
   {
      loss=a-b;
      printf("LOSS = %lf\n",loss);
   }
   else if(a==b)
      printf("THERE IS NO LOSS AND NO
PROFIT");
   return 0;

}
```

19.

```
#include<stdio.h>
int main()
{
   int p,c,b,m;
   double perc;
   printf("Enter the marks of all sub : ");
   scanf("%d %d %d %d",&p,&c,&b,&m);
   perc = (p+c+b+m)/4;
   printf("Percentage = %lf\n",perc);
   if(perc>=90)
   printf("Grade A");
      else if(perc>=80)
      printf("Grade B");
      else if(perc>=70)
      printf("Grade C");
      else if(perc>=60)
      printf("Grade D");
      else if(perc>=40)
      printf("Grade E");
      else if(perc<40)
      printf("Grade F");
   return 0;
}
```

20.

```
#include <stdio.h>
int main()
{
   double basic, gross, da, hra;
   printf("Enter basic salary of an employee: ");
   scanf("%lf", &basic);
   if(basic <= 10000)
   {
      da  = basic * 0.8;
      hra = basic * 0.2;
   }
   else if(basic <= 20000)
   {
      da  = basic * 0.9;
      hra = basic * 0.25;
   }
   else
   {
      da  = basic * 0.95;
      hra = basic * 0.3;
   }
   gross = basic + hra + da;
printf("GROSS SALARY OF EMPLOYEE = %lf",
gross);
return 0;
}
```

21.

```
#include <stdio.h>

int main()
{
   float unit;
   double bill, total_bill, surcharge;
   printf("Enter total units : ");
   scanf("%f", &unit);
   if(unit <= 50)
   {
      bill = unit * 0.50;
   }
   else if(unit <= 150 && unit>50)
   {
      bill = 25 + ((unit-50) * 0.75);
   }
   else if(unit <= 250 && unit>150)
   {
      bill = 100 + ((unit-150) * 1.20);
   }
   else
   {
      bill = 220 + ((unit-250) * 1.50);   }
   surcharge = bill * 0.20;
   total_bill  = bill + surcharge;

   printf("Electricity Bill = Rs. %.3lf", total_bill);

   return 0;
}
```