1.

numNeighbors=4 is wrong should be recorrected as numNeighbors==4
There is no () in the if statement
There is no {} inside the if block

2.

Here I am!
No, I'm Here
No, Actually, I'm here!

3.

```
if (doesSignificantWork) {
if (makesBreakthrough)
nobelPrizeCandidate = true;
else
nobelPrizeCandidate = false;
}
else if (!doesSignificantWork)
nobelPrizeCandidate = false;
```

4.

    i.   If(taxCode=='T')
        Price = price+ (price*taxRate);

    ii.   double x,y,sum;
        If(opcode=1)
        printf("Enter the two numbers);
        scanf("%lf %lf",&x,&y);
        sum = x +y;
        printf("sum is %lf",sum);

    iii.   if(currentNumber%2==1)
        currentNumber=(currentNumber*3)+1;
        else
        currentNumber=currentnumber*0.5;

iv.   int main()
```
{
int year;
printf("Enter a year: ");
scanf("%d",&year);
if(year%4 == 0)
{
if( year%100 == 0)
{
// year is divisible by 400, hence the year is a leap year
if ( year%400 == 0)
printf("%d is a leap year.", year);
else
printf("%d is not a leap year.", year);
}
else
printf("%d is a leap year.", year );
}
else
printf("%d is not a leap year.", year);
}
```

5.

```
double cost;
if(distance> 0 && distance<100)
cost=5.00;
else if(distance> 100 && distance<500)
cost=8.00;
else if(distance>500 && distance<1000)
cost=10.00;
else(distance== 1000 && distance>1000)
cost=12.00;
```