1. **Generate CRC – 12 or 16 Program.**

Enter dataword = 1010101010

Enter Generator: 1010

Enter CRC = 12 or 16

****

Transmitted data: 000**1010101010**010

If any Error in Data Transmission (Enter 1 for Yes or 0 for No): 0

Received Data: 000**1010101010**010

Remainder: 000

Data Received Successfully.

****

If any Error in Data Transmission (Enter 1 for Yes or 0 for No): 1

Error generated in which bit position?: 5

Received Data: 000**1110101010**010

Remainder: 111

Data Received with error.

```
check()
{
   for(i = 0; i <= 12; i++)
   {
      if(rem[i] == 0)
      continue;
      else
      {
         for(k = 0, t = i; k < num; k++, t++)
         {
            if(rem[t] == 1 && gen[k] == 1)
            rem[t] = 0;
            else if(rem[t] == 0 && gen[k] == 0)
            rem[t] = 0;
            else if(rem[t] == 1 && gen[k] == 0)
            rem[t] = 1;
            else if(rem[t] == 0 && gen[k] == 1)
            rem[t] = 1;
         }
      }
   }
   return 0;
}
Remainder ()
{
   for(i = 0; i < j; i++)
   {
      printf("%d", temp[i]);
      rem[i] = temp[i];
   }
   return 0;
}
```