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BCA "B" 6 sem
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Ans 4>

```
#import library
import math. random
# function to generate OTP
def generate OTP();
 # declare = "0123456789"
  OTP = " "
  # length of password can be changed
  # by changing value in range.
 for i in range(4):
OTP += digits [math. floor(random. random(1*10)]
  return OTP
# driva code
if --name-- == "__main__";
  print ("OTP of 4 digits:", generateOTP()).
```

Ans3>

```
#include <bits/stdc++.h>
using namespace std;
string generateKey(string str, string key)
{
 int x = str.size();
 for(int i=0; ; i++)
  {
   if(x == i)
       i = 0;
   if (key.size() == str.size())
     break;
   key.push_back(key[i]);
   }
   return key;
   }
string cipherText(string str, string key)
 {
  string cipher_text;
   for(int i = 0; i < str.size(); i++)
   {
   char x = (str[i] + key [i])%26;
   x += 'A';
   cipher_text.push_back(x);
   }
   return cipher_text;
        }
```

```
string originalText( string cipher_text, string key)
{
 string orig_text;
 for(int i=0; i< cipher_text.size(); i++)
  {
  char x= (cipher_text[i]- key[i]+26)%26;
   x+='A';
   orig_text.push_back(x);
  }
  return orig_text;
 }
 int main()
 {
 string str= "GEEKS";
 string Keyword= "AYUSH";
 string key = generateKey(str, Keyword);
 string cipher_text = ciphertext (str, key);
 cout<<"ciphertext:"<<cipher_text<<"\n";
 cout<<"original/Decrypted Text:"
        <<originalText(cipher_text, key);
   return 0;
   }
```

Anss)

```
#include<iostream>
using namespace std;
string encrypt(string text, int a)
{
 string result="";
 for(int i=0; i<text.length(); i++)
  {
  if(isupper(text[i]))
   result += char(int(text[i]+s-65)%26+65);
  else
   result += char(int(text[i]+s-97)%26+97);
   }
   return result;
   }
   int main()
   {
   string text="ATTACKATONCE";
    int s=4;
    cout<<"Text:"<<text;
    cout<<"\nshift:"<<s;
    cout<<"\nCipher:"<<encrypt(text,s);
    return0;
     }.
```