RSA

Software: Scilab

```
q=11;
n=p*q;
phi=(p-1)*(q-1);
e=7;
d=1;
t=1;
p=5;
plaintext=p;
disp('The plain text is');
disp(p);
while t==1 do
if(modulo(e*d,phi)==1)
t=0;
else
d=d+1;
end
```

```
end
c=modulo(p^e,n);
disp('The Cipher text is');
disp(c);
P=modulo(c^d,n);
disp('The decoded plain text is');
disp(P);
```

Result:

```
The plain text is
   5.
The Cipher text is
   14.
The decoded plain text is
   5.
```