```
#CS-ASSIGNMENT 3 - DIFFIE HELLMAN ALGORITHM
#HARSH MEHTA
#TA41
#BATCH B
import random

p = int(input("Enter p:"))
g = int(input("Enter g:"))

a = random.randint(1, 100)
b = random.randint(1, 100)

x = ((g ** a) % p)
y = ((g ** b) % p)

Ka = ((y ** a) % p)
Kb = ((x ** b) % p)

print("Secret key at A = ", str(Ka))
print("Secret key at B = ", str(Kb))
```

```
Enter p:3
Enter g:5
Secret key at A =  1
Secret key at B =  1
```