Python Worksheet

1. Which of the following operators is used to calculate remainder in a division?
 Ans: c) %

2.In python 2//3 is equal to?
Ans: A) 0.666

3.In python, 6<<2 is equal to?

Ans: A) 36

4.In python, 6&2 will give which of the following as output?
Ans: A) 2

5. In python, 6|2 will give which of the following as output?
Ans: B) 4

6. What does the finally keyword denotes in python?
Ans: C) the finally block will be executed no matter if the try block raises an error or not.

7. What does raise keyword is used for in python?
Ans: A) It is used to raise an exception.

8. Which of the following is a common use case of yield keyword in python?
Ans: C) in defining a generator.

9. Which of the following are the valid variable names?
Ans: A) _abc
C)abc2

10. Which of the following are the keywords in python?
Ans: D) all of the above

Q11 to Q15 are programming questions. Answer them in Jupyter Notebook.
11. Write a python program to find the factorial of a number.

```
def factorial(n):

    # single line to find factorial
    return 1 if (n==1 or n==0) else n * factorial(n - 1);

    # Driver Code
    num = 5;
    print("Factorial of",num,"is",
    factorial(num))
```

12. Write a python program to find whether a number is prime or composite.

Answer

```
#include<stdio.h>
void main()
```

```c
{
   int a,i;
   clrscr();
   printf("given number:");
   scanf("%d",&a);
    for(i=2;i<=a;i++)
      {
         if(a%i==0)
          {
             printf("%d is composite number",a);
             break;
          }
        }
        if(a==i)
          printf("%d is prime number",a);
      getch();
}
```
output of the above program is
given number:17
17 is prime number

13. Write a python program to check whether a given string is palindrome or not.

```python
my_str = 'aIbohPhoBiA'

# make it suitable for caseless comparison
my_str = my_str.casefold()

# reverse the string
rev_str = reversed(my_str)

# check if the string is equal to its reverse
if list(my_str) == list(rev_str):
    print("The string is a palindrome.")
else:
    print("The string is not a palindrome.")
```