

Worksheet no. 3 Python
By Rakesh Shinde

1. Which of the following will raise a value error in python?

D) `int('32')`

2. What will be the output of `round(3.567)`?

C) 4

3. How is the function `pow(a,b,c)` evaluated in python?

B) `(a**b)%c`

4. What will be the output of `print(type(type(int)))` in python 3?

A) `<class 'type'>`

5. What will be the output of `ord(chr(65))`?

C) 65

6. What is called when a function is defined inside a class?

D) Method

7. What will be the output of `all([1, 0, 5, 7])`?

B) False

8. Is the output of the function `abs()` the same as that of the function `math.fabs()`?

B) Sometimes

9. Select all correct float numbers in python?

A) -68.7e100 B) 42e3

C) 4.2038 D) 3.0

10. Which of the following is(are) correct statement(s) in python?

A) You can pass positional arguments in any order.

B) You can pass keyword arguments in any order.

C) You can call a function with positional and keyword arguments.

D) Positional arguments must be before keyword arguments in a function call

11. Write a python function print pyramid of stars. Level of the pyramid should be taken as an input from the user.

Ans:

```
n=int(input("Enter the level of Pyramid"))
```

```
for i in range(n):
```

```
    for j in range(n-i-1):
```

```
        print(" ", end="")
```

```
    for j in range(i+1):
```

```
        print("*", end=" ")
```

```
    print()
```

12. Write a python function print Hourglass pattern.

Ans:

```
n=int(input("Enter the level of Hourglass"))
```

```
for i in range(n):
    for j in range(i):
        print(" ", end="")
    for j in range(n-i):
        print("*", end=" ")
    print()
for i in range(1,n):
    for j in range(n-i-1):
        print(" ", end="")
    for j in range(i+1):
        print("*", end=" ")
    print()
```

13. Write a python function to print Pascal's Triangle. The number of levels in the triangle must be taken as input by the user. E.g.

Input = 5

Ans:

```
n=int(input("Enter the level for pascal's triangle"))
```

```
list1=[]
```

```
for i in range(n):
    temp=[]
    for j in range(i+1):
        if (j==0) or (j==i):
            temp.append(1)
        else:
            temp.append(list1[i-1][j]+list1[i-1][j-1])
    list1.append(temp)
```

```
for i in range(n):
    for j in range(i+1):
        print(list1[i][j],end=" ")
    print()
```

14. Write a python function to print Diamond Shaped Pattern shown below. Function must take integer input which represents the number of stars in the middle most line. E.g.:

Input = 5

Ans:

```
n=int(input("Enter the level of Diamond"))
```

```
for i in range(n):
    for j in range(n-i-1):
        print(" ", end="")
    for j in range(i+1):
        print("*", end=" ")
    print()
```

```
for i in range(1,n):
```

```

for j in range(i):
    print(" ", end="")
for j in range(n-i):
    print("*", end=" ")
print()

```

15. Write a python function to print Diamond Shaped Character Pattern shown below. Function must take integer input within range 1 to 26, which represents the rank of the alphabet. E.g.:
Input = 5

Ans:

```

n=int(input("Enter the no. of levels in character diamond"))

```

```

for i in range(n):
    k=ord("A")
    for j in range(n-i-1):
        print(" ", end="")
    for j in range(i+1):
        print(chr(k), end=" ")
        k=k+1
    print()
for i in range(1,n):
    k=ord("A")
    for j in range(i):
        print(" ", end="")
    for j in range(n-i):
        print(chr(k), end=" ")
        k=k+1
    print()

```