

WORKSHEET 3 PYTHON

Q1 to Q8 have only one correct answer. Choose the correct option to answer your question.

1. Which of the following will raise a value error in python?
A) `int(32)` B) `int(3.2)`
C) `int(-3.2)` D) `int('32')`
2. What will be the output of `round(3.567)`?
A) 3.5 B) 3.0
C) 4 D) 3
3. How is the function `pow(a,b,c)` evaluated in python?
A) `a**b**c` B) `(a**b)%c`
C) `(a**b)*c` D) `(a**b)**c`
4. What will be the output of `print(type(type(int)))` in python 3?
A) `<class 'type'>` B) `<type 'type'>`
C) `<class 'int'>` D) `<type 'int'>`
5. What will be the output of `ord(chr(65))`?
A) 'A' B) 'a'
C) 65 D) `TypeError`
6. What is called when a function is defined inside a class?
A) Module B) Function
C) `_init_` function D) Method
7. What will be the output of `all([1, 0, 5, 7])`?
A) 0 B) False
C) True D) error
8. Is the output of the function `abs()` the same as that of the function `math.fabs()`?
A) Always B) Sometimes
C) Never D) None of these

Q9 and Q10 have multiple correct answers. Choose all the correct options to answer your question.

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

Q11 to Q15 are programming questions. Answer them in Jupyter Notebook.

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

Input = 5

Output:

```
  *
 * *
* * *
* * * *
* * * * *
```

12. Write a python function print Hourglass pattern.

E.g.

Input = 5

Output:

```
* * * * *
 * * * * 
  * * *  
   * *   
    *    
   * *   
  * * *  
 * * * * 
* * * * *
```

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

Output:

```
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
```

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

Output:

```
  *
 * *
* * *
* * * *
* * * * *
* * * * 
 * * *
  * *
   *
```

FLIP ROBO

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

Output:

```
  A
 A B
A B C
A B C D
A B C D E
 A B C D
  A B C
   A B
    A
```