PYTHON – WORKSHEET 1

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

1. Which of the following operators is used to calculate remainder in a division?

A) # B) &

C) % D) $

1. Answer is (c) %

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2. In python 2//3 is equal to?

A) 0.666 B) 0
C) 1 D) 0.67

2. Answer is (B) 0

Explanation:
We call it floor division, 2//3 is .66 after round it is 0. While 3//2 =1

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

A) 36 B) 10
C) 24 D) 45

3. Answer is (c) 24

Explanation:
This is a shift operator or Bitwise operator. 6 in binary (0110), shift 2 left will become (011000) is 23 (16+8)

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

A) 2 B) True

C) False D) 0

4. Answer is (a) 2

Explanation:
& bitwise and operator 0110 & 0010 = 0010 = 2

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5. In python, 6|2 will give which of the following as output?

A) 2 B) 4

C) 0 D) 6

5. Answer is (d) 6 .

Explanation:

Bitwise OR operator , 0110 | 0010 = 0110 = 6

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6. What does the finally keyword denotes in python?
A) It is used to mark the end of the code

B) It encloses the lines of code which will be executed if any error occurs while executing the lines of code in the try block.

C) the finally block will be executed no matter if the try block raises an error or not.

D) None of the above

6. Answer is (c)

the finally block will be executed no matter if the try block raises an error or not.

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7. What does raise keyword is used for in python?
A) It is used to raise an exception. B) It is used to define lambda function

C) it's not a keyword in python. D) None of the above

7. Answer is (a) It is used to raise an exception, Actually a custom exception. An example is below.

Explanation:

```
x=-1

if x<0:
    raise Exception("Sorry, Negative number is not allowed")
```

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8. Which of the following is a common use case of yield keyword in python?
A) in defining an iterator B) while defining a lambda function

C) in defining a generator D) in for loop.

8. Answer is (c) in defining a generator.

Explanation: yield keyword is used to define generator and Generators are being used to generate iterator.

```
    like: ## iterator  in which we have to use next keyword to iterate
        lst=[1,2,3,4]
        iterator= iter(lst)

        next(iterator)  # run everytime to iterate every value
```

Generator:

```
    def sqr(x):
        for i in range(x):
            yield i**2
```

Output: sqr(3) is <generator object sqr at 0x00000235A6ACC6D0>
Here, we have to use next keyword to iterate through.

```
a= sqr(3)
next(a)
```

or

```
for i in sqr(3):
    print(i)
```

Q9 and Q10 have multiple correct answers. Choose all the correct options to answer your question.
9. Which of the following are the valid variable names?
A) _abc B) 1abc

C) abc2 D) None of the above

Answer is (A), (C)

Explanation:
Valid variable names can start with any alphabets or underscore but can't start with a number.

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10. Which of the following are the keywords in python?
A) yield B) raise

C) look-in D) all of the above

10 Answer is (A), (B)

Explanation:

import keyword
keyword.kwlist

Q11 to Q15 are programming questions. Answer them in Jupyter Notebook.
11. Write a python program to find the factorial of a number.
12. Write a python program to find whether a number is prime or composite.
13. Write a python program to check whether a given string is palindrome or not.
14. Write a Python program to get the third side of right-angled triangle from two given sides.
15. Write a python program to print the frequency of each of the characters present in a given string.

Answer: 11 to 15 are in separate Jupyter notebook.