PYTHON – WORKSHEET 1

Q1 to Q8 have 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) $
   Answer: Option C - %
   - **% operator is used to calculate remainder in a division**

2. In python 2//3 is equal to?
   A) 0.666 B) 0
   C) 1 D) 0.67
   Answer: Option B - 0
   - **// operator is used for floor division and it will remove the fractional part so 2//3 will give 0 answer**

3. In python, 6<<2 is equal to?
   A) 36 B) 10
   C) 24 D) 45
   Answer: Option C – 24
   - **<<-left shift operator means left shift by n is equal to multiply with pow(2,n) so 6<<2 means left shift by 2 is equal to multiply with pow(2,2)**

4. In python, 6&2 will give which of the following as output?
   A) 2 B) True
   C) False D) 0
   Answer: Option A - 2
   - **&-Bitwise AND operator means perform AND operation between the binary numbers of the given digits**

5. In python, 6|2 will give which of the following as output?
   A) 2 B) 4
   C) 0 D) 6
   Answer: Option D – 6
   - **|-Bitwise OR operator means perform OR operation between the binary numbers of the given digits**

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
   Answer: Option 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?
   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
   Answer: Option A - It is used to raise an exception.
   - **Raise keyword is used to raise an exception.**

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.
   Answer: Option C - in defining a generator
   - **common use case of yield keyword in python**

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: Option A, Option B, Option C

10. Which of the following are the keywords in python?
   A) yield
   B) raise
   C) look-in
   D) all of the above
   Answer: Option A, Option B

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.

- **For all these programs, I have uploaded Python worksheet 1.ipynb on GitHub**