1Q) Which of the following is a valid identifier?

Options:
  A. $343
  B. mile
  C. 9X
  D. 8+9
  E. max_radius

2Q) If you enter 1, 2, 3, in one line, when you run this program, what will be displayed?

Program:
```
number1, number2, number3 = eval(input("Enter three numbers: "))
# Compute average
average = (number1 + number2 + number3) / 3
# Display result
print(average)
```

Options:
  A. 1.0
  B. 2.0
  C. 3.0
  D. 4.0

3Q)What is y displayed in the following code?

Program:
```
x = 1
y = x = x + 1
print("y is", y)
```

Options:
  A. y is 0.
  B. y is 1 because x is assigned to y first.
  C. y is 2 because x + 1 is assigned to x and then x is assigned to y.
  D. The program has a compile error since x is redeclared in the statement int y
  = x = x + 1.

4Q)Which of the following functions return 4?
Options:
  A. int(3.4)
  B. int(3.9)
  C. round(3.4)
  D. round(3.9)

5Q)The word True is _____?

Options:

A. a Python keyword
B. a Boolean literal
C. same as value 1
D. same as value 0

7Q) random.random() returns _____?

Options:

A). a float number i such that $0 < i < 1.0$
B). a float number i such that $0 <= i < 1.0$
C). a float number i such that $0 <= i <= 1.0$
D). a float number i such that $0 < i < 2.0$

8Q)Which Of The Following Represents A Template, Blueprint, Or Contract That Defines Objects Of The Same Type?

Options:

A). A class
B) An object
C) A method
D).A data field

9Q)Which Of The Following Is Required To Create A New Instance Of The Class?

Options:

A) A constructor
B) A class
C) A value-returning method
D) A None method

10Q) Arguments to functions always appear within _____.

Options:

A) brackets
B) parentheses
C) curly braces
D) quotation marks

11Q)Each time a function is invoked, the system stores parameters and local variables in an area of memory, known as _____, which stores elements in last-in first-out fashion.

Options:

A. a heap
B. storage area
C. a stack
D. an array

12Q)Given the following function header:

def f(p1, p2, p3, p4)Which of the following is correct to invoke it?

Options:

A. f(1, 2, 3, 4)
B. f(p1 = 1, 2, 3, 4)
C. f(p1 = 1, p2 = 2, p3 = 3, 4)
D. f(p1 = 1, p2 = 2, p3 = 3, p4 = 4)
E. f(1, 2, 3, p4 = 4)

13Q)When you invoke a function with a parameter, the value of the argument is passed to the parameter. This is referred to as _____.

Options:

A. function invocation
B. pass by value
C. pass by reference
D. pass by name

14Q) Suppose d = {"john":40, "peter":45}, the keys are _____?

Options:

A. "john", 40, 45, and "peter"
B. "john" and "peter"
C. 40 and 45
D. d = (40:"john", 45:"peter")

15Q) Which of the following statements are true?

Options:

A. A Python list is immutable if every element in the list is immutable.
B. A Python set is immutable if every element in the set is immutable.
C. A Python tuple is immutable if every element in the tuple is immutable.
D. A Python tuple is immutable.

********************************Subjective*******************************

1. What are Dict and List Comprehensions?

2. What is the difference between list and tuple?

3. What is the use of the split function in Python?

4. How do you delete a file in Python?

5. What is unittest?

6. What is pass in Python?

7. What is docstring?

8. Why do lambda forms in Python not have statements?

9. What are the built-in type does python provides?

10. What is namespace in Python?

11. Explain how to overload constructors or methods in Python.

12. What is the use of enumerate() in Python?

13. Explain split(), sub(), subn() methods

14. How to display the contents of text file in reverse order?

15. What is multithreading? Give an example.

16. How instance variables are different from class variables? \

17. Which methods of Python are used to determine the type of instance and inheritance?

18. Differentiate between .py and .pyc files?

19. How do you remove duplicates from a list?

20. Differentiate between append() and extend() methods. ?

21. Mention what are the rules for local and global variables in Python?

22. Mention the use of // operator in Python?

23. Mention five benefits of using Python?

24. What is the output of print tuple[1:3] if tuple = ('abcd', 786 , 2.23, 'john', 70.2)?

25. What is the maximum possible length of an identifier?

****************************Programing*****************************

1. Write a program to calculate average ,mean median, mode?

2. Write a program which can compute the factorial of a given numbers.The results should be printed in a comma-separated sequence on a single line.?

3. With a given integral number n, write a program to generate a dictionary that contains (i, i*i) such that is an integral number between 1 and n (both included). and then the program should print the dictionary?

4. Write a program which accepts a sequence of comma-separated numbers from console and generate a list and a tuple which contains every number?

5. You are required to write a program to sort the (name, age, height) tuples by ascending order where name is string, age and height are numbers. The tuples are input by console. The sort criteria is:
    1: Sort based on name;
    2: Then sort based on age;
    3: Then sort by score.
    The priority is that name > age > score.
    If the following tuples are given as input to the program:
    Tom,19,80
    John,20,90
    Jony,17,91
    Jony,17,93
    Json,21,85
    Then, the output of the program should be:
    [('John', '20', '90'), ('Jony', '17', '91'), ('Jony', '17', '93'), ('Json', '21', '85'), ('Tom', '19', '80')]

6. Define a function that can accept an integer number as input and print the "It is an even number" if the number is even, otherwise print "It is an odd number".

7. Define a function which can print a dictionary where the keys are numbers between 1 and 3 (both included) and the values are square of keys.

8. Define a function which can generate and print a list where the values are square of numbers between 1 and 20 (both included).

9. Define a function which can generate a list where the values are square of numbers between 1 and 20 (both included). Then the function needs to print the first 5 elements in the list.

10. Write a program which accepts a string as input to print "Yes" if the string is "yes" or "YES" or "Yes", otherwise print "No"

11 Write a program, which will find all such numbers between 1000 and 3000 (both included) such that each digit of the number is an even number. The numbers obtained should be printed in a comma-separated sequence on a single line.

12. Write a program that accepts a sentence and calculate the number of upper case letters and lower case letters

13. Write a program that computes the value of a+aa+aaa+aaaa with a given digit as the value of a .Suppose the following input is supplied to the program: 9 .Then, the output should be:11106

14. Define a function that can accept two strings as input and print the string with maximum length in console. If two strings have the same length, then the function should print al l strings line by line.

15.Write a program for a calculator given input be user for the arithmetic operators Comparison operators ,Logical operators ,Assignment operators ,Identity operators (is ,is not) Calculation