General Instructions:
1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A has 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 02 questions carrying 04 marks each
7. Section E has 03 questions carrying 05 marks each.
8. All programming questions are to be answered using Python Language only.

Section-A

1. What is the datatype of L if L=[1, 'Python', 2.5]
   a) list   b) String   c) tuple   d) dictionary

2. Find the output of the following
   word="green vegetable"
   print(word.find('veg', 2))
   a) 8   b) 6   c) 10   d) 12

3. Which character is used in Python to make a single line comment?
   a) /   b) //   c) *   d) #

4. Which statement is true from the following:-
   a) List is immutable and tuple is mutable
   b) List is mutable and tuple is immutable
   c) Both are mutable
   d) Both are immutable

5. Find the output of the following code:-
   number=[1, 5, 7, 0, 4]
   print(number[2:3])
   a) [5]   b) [7]   c) [7,0]   d) None of the above

6. What is the output of following code segment.
   T= min(1, 6, 0, -3, 100)
   a) 1   b) -3   c) "Hello"   d) None of the above

7. Which of the following is not valid string in python?
   a) "Hello"   b) 'Hello'   c) "Hello'   d) None of the above

8. What will be the output of above Python code?
   abc="6/4"
   print("abc")
   a) 1   b) 6/4   c) 1.5   d) abc

9. Which of the following will give "Simon" as output?
   if str1= "Hari,Simon,Vinod"
   a) print(str1[-7:-12])   b) print(str1[-11:-7])
   c) print(str1[-11:-6])   d) print(str1[-7: -11])

10. Accessing of data in a dictionary is done through
    a) index   b) value   c) key   d) cell number

11. Which of the following will be the output of the operation?
    ```
    >>>L1=[1, 2]
    >>>L2=[3, 4]
    >>>(L1+L2)*2
    ```
    a) [2, 4, 6, 8]   b) [1, 2, 3, 4, 1, 2, 3, 4]
    c) [1, 3, 4, 4]   d) [3, 4, 1, 2]

12. Which of the following can add a list of elements to a list?
    a) append( )   b) extend( )   c) add( )   d) none of these

13. What is the output of the following?
    ```
    >>>print('INDIA'. capitalize( ))
    ```

14. Suppose tuple T is T=(10,12, 43, 39), find incorrect statement.
    a) print(T[1])   b) T[2]=-29   c) print(max(T))   d) print(len(T))

15. What will be the result of the following code?
    ```
    >>>d1={"abc":5, "def":6, "ghi":7}
    >>>print(d1[abc])
    ```
    a) abc   b) 5   c) {"abc":5}   d) error

16. STR="RGBCOLOR"
    colors=list(STR)
    How do we delete 'B' in given list colors?
    a) del colors[2]   b) colors.remove("B")
    c) colors.pop(2)   d) all of these

17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as
    a) Both A and R are true and R is the correct explanation for A
    b) Both A and R are true and R is not the correct explanation for A
    c) A is True but R is False
    d) A is false but R is True

17. choose correct option:
    D1={'A': 'CS', 'B': 'IP'}
    D2={'B': 'IP', 'A': 'CS'}
    Assertion(A): Output of print(D1==D2) is True.
    Reasoning(R): Dictionary is a collection of key-value pairs. It is not a sequence.

18. Assertion (A): Comments are non-executable statements that enables the users to understand the
                  program.
    Reasoning(R): They are basically statements used to put remarks. The comments are used to
                  explain the code and to make it more informative for the user.

Section-B

19. What is the output of following program?
    ```
    fruits={'Apple': 100, 'Orange': 200, 'Banana': 400, 'Pomegranate': 600}
    if 'Apple' in fruits:
            del fruits['Apple']
    print('Dictionary after deleting key=', fruits)
    ```

20. a) What will be the output of following python code?
        ```
        >>>print(math.ceil(55.1))
        ```
    b) Which python module is required to run above code successfully?

21. a) Write the output of following code segment.
        ```
        str="CS and IP"
        a=str.split( )
        print(a)
        ```

b) Write the output of the code given below:
```
dict={"stname": "Ayay", "age": 17}
dict['age']=27
dict['address']="Bikaner"
print(dict)
```

22. How is the pop() function different from remove() function working with list in python? (write any two difference)

23. Write any two differences between break and continue statement.

24. Predict the output of the python code given below:
```
i=1
while i<6:
    print( i )
    if i==3:
        break
    i+=1
```

25. What will be the output of the following code
    a) list1=[13, 18, 16, 16, 13, 18]
       print(list1. index(16))
    b) strg="computer"
       print(strg[0:8:2])

Section-C

26. What possible output(s) are expected to be displayed on screen at the time of execution of the program from the following code?
```
import random
LST=[5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70]
first=random.randint(3, 8)-1
second= random.randint(4, 9)-2
thrid=random.randint(6, 11)-3
print(LST(first), "#", LST(second), "#", LST(third), "#")
```
    a) 20#25#25#   b) 30#40#70#
    c) 15#60#70#   d) 35#40#60#

    Specify the maximum values that can be assigned to each of the variable second and third in the code given.

27. Write a program to input names of n students and store them in a tuple. Also input a name from the user and find if the student is present in the tuple or not.

28. Go through the program of a dictionary in python given below and predict the output of the program
```
Student={"RollNo":10, "Name": "Kuku", "Class":11, "Age":15}
T=len(Student)
elm=Student.get("Name")
mylist= Student.items( )
print("length=", T)
print("Specific element", elm )
print("My list=", mylist)
```

29. Predict the output of the code given below:
```
KV=(11, 22, 33, 44, 55, 66)
NVS=list(KV)
new_list=[ ]
for i in KV
    if i%2==0:
        new_list.append( i )
new_tuple=tuple(new_list)
print(new_tuple)
```

30. What is difference between sort() and sorted() function in python. Explain with an example.

Section-D

31. Write a python program to input a string and replace all blank spaces by '$'symbol. Display the original string and modified string.

32. Write a python program to input 10 number to store in the list and print the third largest number. For example, if the entered numbers in the list are 36, 25, 14, -951, 75, -25, 654, 88, 9521, 674, then output will be
    The third largest number is: 654

Section-E

33. Answer the following questions:
    a) How is random.randint(10) different from random.randrange(10)
    b) Write a python program to generate a random number between 0 to 8.
    c) How is math.ceil(89.7) different from math.floor(89.7)
    d) Write the name of any two functions included in statistic module.

34. Mr. Rajesh Kumar is a teacher in a school. He is doing his work manually. As a python teacher solve the problem of Rajesh Kumar by python program.
    a) Create a dictionary student which ask student roll number, Name and Marks of students and display them in tabular format.
    b) Display the names of those students who have secured marks more than 75.
    c) Delete those students who have secured less than 50 marks.

35. Which string method is used to implement the following and also write the type of value returned by them.
    a) to count the number of characters in a sting.
    b) to change the first letter of the string in capital letter.
    c) to change lowercase to uppercase letter.
    d) to check whether the given character is letter or number.
    e) to replace all the occurrence of the old string with the new string.

-x-x-x-x-x-x-x-