Summer Holiday Homework
Class – XII
Subject – Computer Science

1. What is the difference between a keyword and an identifier?
2. What are literals in Python? How many types of literals are allowed in Python?
3. How many types of strings are supported in Python ?
4. What is None literal in Python?
5. What are data types? What are V's built-in core data types?
6. Why is Boolean considered a subtype of integers?
7. What is the role of comments and indentation in a program?
8. What are operators? What is their function? Give examples of some unary and binary operators.
9. What are immutable and mutable types? List immutable and mutable types of python.
10. What is the difference between implicit type conversion and explicit type conversion?
11. What is entry controlled loop? Which loop is entry controlled loop in Python?
12. Predict the outputs of the following programs :

    A. count=0
         while count < 10:
              print('hello')
              count += 1
    B. keepgoing = True
          x = 100
              print(x)
              x = x – 10
              if x < 50 :
                      keepgoing = False
    C. x='apple,pear,peach,grapefruit'
          y = x.split(',')
          for z in y :
              if z < 'k' :
                      print(str.lower(z))
              else :
                      print(str.upper(z))
    D. for name in ['Jayes', 'Ramya', 'Taruna', 'Suraj']:
              print(name)
              if name[0] == 'T' :
                      break
              else:
                      print('Finished!')
           print('Got it!')

13. How many times will the following for loop execute and what's the output?
              for i in range(-1,7,-2):
                      for j in range(3):
              print(1,i,j)
14. What is a string slice ? How is it useful?
15. How are lists different from strings when both are sequences ?

16. How are tuples different from lists when both are sequences ?
17. How can you say that a tuple is an ordered list of objects?
18. How are dictionaries different from lists?
19. When are dictionaries more useful than lists?
20. What are the two ways to remove something from a list? How are they different.
21. Predict the output of the following program :

```
numbers = [9,18,27,36]
for num in numbers:
        for n in range(1,num%8):
        print(n,'#', end=" ")
print()
```

22. What is the significance of having functions in a program?
23. What is the difference between the formal parameters and actual parameters ? what are their alternative names? Illustrate with example.
24. What is the difference between a local variable and a global variable? Give a suitable Python code to illustrate both.
25. What is the utility of
    i.   Default arguments,
    ii. Keyword arguments
26. Describe the different style of functions in Python using appropriate examples.
27. What is scope of functions?
28. What is the difference between local and global variables?
29. What do you understand by flow of execution?
30. Predict the output -

```
num=1
def myfunc( ):
        global num
        num=10
        return num
print(num)
print(myfunc())
print(num)
```

31. Prepare Notes of following Chapters
    - Chapter – 1 Python Revision Tour
    - Chapter – 2 Python Revision Tour- II
    - Chapter – 3 Working with Functions
    - Chapter – 11 Computer Networks – I
    - Chapter – 12 Computer Networks – II
    - Chapter – 13 MySql SQL Revision Tour
    - Chapter – 14 More on SQL
    - Chapter – 17 Society , Law and Ethics
32. Do all Solved and unsolved Practical based question given at the end of each chapter in the book 'Sumita Arora' Computer Science Class XII .