THEORY QUESTIONS :

1. What are classes and objects? how are they created? – CO3- 5
2. Explain types of inheritance with examples – CO-3 - 5
3. What are constructors? types of constructors? – CO3- 5
4. Method overloading and method overriding – CO-2 – 5
5. what are the properties of Dictionary Keys? – CO2- 5
6. What is String and solve any 5 methods –CO2- 10
7. Features of python – CO-1 - 5
8. Explain break, continue and pass statement with suitable example of each. – CO-1-5
9. Explain following operators of python with suitable examples of each. – CO1- 5
   a. is,
   b. in,
   c. not in

INPUT QUESTIONS :

Note: all programs must be user defined

10. Wap to display and find sum of lists of numbers using for loop – CO1- 10
11. Same program with while loop – CO1
12. Wap to linear search an element in the lists of elements – CO2
13. Calculating sum and average of strings and display it. – CO2
14. Wap to create a dictionary with cricket players names and scores in matches . also retrieve runs by entering players name * - CO2
15. Wap to implement Multiple inheritance using two base classes – CO3
16. Wap to implement single inheritance using two base classes – CO3
17. Wap to implement method overloading in python . – CO3
18. Wap to implement method overriding in python . – CO3

OUTPUT QUESTIONS :

19.
```
s1 = "rait@engineering.com"
s2 = ""
s3 = ""
for x in s1:
    if(x=="a" or x=="n" or x=="e" or x == "i"):
        s2 += x
print(s2,end=" ")
print(s3)
```

output:

aienineein

20.
```
class A:
    def test(self):
        print("test of A called")
class B(A):
    def test(self):
        print("test of B called")
        super().test()
class C(A):
    def test(self):
        print("test if C called")
        super().test()
class D(B,C):
    def test2(self):
        print("test of D called")
obj = D()
obj.test()
```

output:

test of B called

test of C called

test of A called

21. tup=(10,30,15,9)
    s=1
    t=0
for i in range(s,4):
  t=t+tup[i]
  print(i,":",t)
  t=t+tup[0]*10
  print(t)

output:
1 : 30
130
2 : 145
245
3 : 254
354

22. class Base(object):
      pass

class Derived(Base):
      pass

print(issubclass(Derived, Base))
print(issubclass(Base, Derived))

d = Derived()
b = Base()

print(isinstance(b, Derived))

print(isinstance(d, Base))

output:
True
False
False
True