Q1: What will be the output of the following Python code?

```
class A():
    def disp(self):
        print("A disp()")
class B(A):
    pass
obj = B()
obj.disp()
```

a) Invalid syntax for inheritance
b) Error because when object is created, argument must be passed
c) Nothing is printed
d) A disp()

Answer: d

Q2: What will be the output of the following Python code?

```
class Test:
    def __init__(self):
        self.x = 0
class Derived_Test(Test):
    def __init__(self):
        Test.__init__(self)
        self.y = 1
def main():
    b = Derived_Test()
    print(b.x,b.y)
main()
```

a) Error because class B inherits A but variable x isn't inherited
b) 0 0
c) 0 1
d) Error, the syntax of the invoking method is wrong
Answer: c

Q3: class is a _____
a) template
b) blue print
c) both a and b
d)None of the above
Answer: c

Q4: Which of the following is not a type of inheritance?
a) Double-level
b) Multi-level
c) Single-level
d) Multiple
Answer: a

Q5: What type of inheritance is illustrated in the following Python code?

```
class A():
```

```
    pass
class B():
    pass
class C(A,B):
    pass
```

a) Multi-level inheritance
b) Multiple inheritance
c) Hierarchical inheritance
d) Single-level inheritance

Answer: b

Q6: What will be the output of the following Python code?

```
class A:
    def one(self):
        return self.two()

    def two(self):
        return 'A'

class B(A):
    def two(self):
        return 'B'
obj1=A()
obj2=B()
print(obj1.two(),obj2.two())
```

a) A A
b) A B
c) B B
d) An exception is thrown

Answer: b

Q7:What will be the output of the following Python code?

```
class A:
    def __init__(self):
        self.__i = 1
        self.j = 5

    def display(self):
        print(self.__i, self.j)
class B(A):
    def __init__(self):
        super().__init__()
        self.__i = 2
        self.j = 7
c = B()
c.display()
```

a) 2 7
b) 1 5

c) 1 7
d) 2 5

Answer: c

Q8:Which is not an object?
a) string
b) list
c) dictionary
d) None of the above

Answer: d

Q9: What will be the output of the following Python code?

```
class A:
    def __init__(self):
        self.__x = 1
class B(A):
    def display(self):
        print(self.__x)
def main():
    obj = B()
    obj.display()
main()
```

a) 1
b) 0
c) None
d) Error

Answer: d

Q 10: What will be the output of the following Python code?

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

a) test of B called
   test of C called

test of A called

b) test of C called
test of B called

c) test of B called
test of C called

d) Error, all the three classes from which D derives has same method test()
Answer: a

Q11. The assignment of more than one function to a particular operator is _____
a) Operator over-assignment
b) Operator overriding
c) Operator overloading
d) Operator instance

Answer: c

Q 12. What is delattr(obj,name) used for?
a) To print deleted attribute
b) To delete an attribute
c) To check if an attribute is deleted or not
d) To set an attribute

Answer: b

Q 13. __del__ method is used to destroy instances of a class.
a) True
b) False

Answer: a

Q 14. What will be the output of the following Python code?

```
class stud:
   'Base class for all students'
   def __init__(self, roll_no, grade):
      self.roll_no = roll_no
      self.grade = grade
   def display (self):
      print("Roll no : ", self.roll_no,  ", Grade: ", self.grade)
print(stud.__doc__)
```

a) Exception is thrown
b) __main__
c) Nothing is displayed
d) Base class for all students

Answer: d

Q 15. What does print(Test.__name__) display (assuming Test is the name of the class)?

a) ()
b) Exception is thrown
c) Test
d) __main__
Answer: c

Q 16:What will be the output of following code?
print(False=={})
a)False
b)True

Answer: a

Q 17. What will be the output of the following Python code?

```
x=12
def f1(a,b=x):
    print(a,b)
x=15
f1(4)
```

a) Error
b) 12 4
c) 4 12
d) 4 15

Answer: c

Q18: What will be the output of the following Python code?

```
def f1(a,b=[]):
    b.append(a)
    return b
print(f1(2,[3,4]))
```

a) [3,2,4]
b) [2,3,4]
c) Error
d) [3,4,2]

Answer: d

Q 19: What will be the output of the following Python code?

```
def f(p, q, r):
    global s
    p = 10
    q = 20
    r = 30
    s = 40
    print(p,q,r,s)
p,q,r,s = 1,2,3,4
```

f(5,10,15)
a) 1 2 3 4
b) 5 10 15 4
c) 10 20 30 40
d) 5 10 15 40

Answer: c
Q 20: What will be the output of the following Python code?

```
x = 5
def f1():
    global x
    x = 4
def f2(a,b):
    global x
    return a+b+x
f1()
total = f2(1,2)
print(total)
```

a) Error
b) 7
c) 8
d) 15

Answer: b

Q 21: What will be the output of the following Python code?

```
x=100
def f1():
    global x
    x=90
def f2():
    global x
    x=80
print(x)
```

a) 100
b) 90
c) 80
d) Error

Answer: a

Q 22) Read the following Python code carefully and point out the global variables?

```
y, z = 1, 2
def f():
    global x
    x = y+z
```

a) x
b) y and z

c) x, y and z
d) Neither x, nor y, nor z
Answer: c

Q 23) Which of these is a private data field?

```
class Demo:
    def __init__(self,x,y,z):
        self.a=x
        self._b=y
        self.__c=z
```

a) a
b) __c
c) _b
d) x

Answer: b

Q 24) What will be the output of the following Python code?

```
class fruits:
    def __init__(self):
        self.price = 100
        self.__bags = 5
    def display(self):
        print(self.__bags)
obj=fruits()
obj.display()
```

a) The program has an error because display() is trying to print a private class member
b) The program runs fine but nothing is printed
c) The program runs fine and 5 is printed
d) The program has an error because display() can't be accessed

Answer: c

Q 25) What will be the output of the following Python code?

```
 class student:
    def __init__(self):
        self.marks = 97
        self.__cgpa = 8.7
    def display(self):
        print(self.marks)
obj=student()
print(obj._student__cgpa)
```

a) The program runs fine and 8.7 is printed
b) Error because private class members can't be accessed
c) Error because the proper syntax for name mangling hasn't been implemented
d) The program runs fine but nothing is printed

Answer: a

Q1: What is output of following code −

```
a = (1, 2)
a[0] +=1
```

A - (1,1,2)
B - 2
C - Type Error
D - Syntax Error

Answer : C

Q2: Suppose we have two sets A & B, then A<B is:

A - True if len(A) is less than len(B).

B - True if A is a proper subset of B.

C - True if the elements in A when compared are less than the elements in B.

D - True if A is a proper superset of B.

Answer : B

Q3: Select the reserved keyword in python
(A) else
(B) import
(C) raise
(D) All of these
Ans: D

Q4: Syntax of constructor in Python?
(A) def __init__()
(B) def _init_()
(C) _init_()
(D) All of these
Ans: A

Q5: What is correct syntax to copy one list into another?
(A) listA = listB[]
(B) listA = listB[:]
(C) listA = listB[]()
(D) listA = listB
Ans: B

Q6: If a='cpp', b='buzz' then what is the output of:
c = a-b
print(c)
(A) cpp-buzz
(B) cppbuzz
(C) TypeError: unsupported operand
(D) None of the above

Ans: C

Q7:What is the output of following code?
a = True
b = False
c = True

```
if not a or b:
    print ("a")
elif not a or not b and c:
    print ("b")
elif not a or b or not b and a:
    print ("c")
else:
    print ("d")
```

(A) a
(B) b
(C) c
(D) d
Ans B
Q8: What is the output of following code?

```
class test:
   def __init__(self):
      print ("Hello World")
   def __init__(self):
      print ("Bye World")
obj=test()
```

(A) Hello World
(B) Compilation Error
(C) Bye World
(D) Ambiguity
Ans: C

Q9: Which of the following is an invalid statement?
(A) abc = 1,000,000
(B) a b c = 1000 2000 3000
(C) a,b,c = 1000, 2000, 3000
(D) a_b_c = 1,000,000
Ans: B

Q10: Is it possible to use round function without any argument like round()
(A) Yes
(B) No
Ans:: B

Q11: What is an exception
(A) Error
(B) Compile time error
(C) Run time error
(D) None
Ans: C

Q12: Predict the output of following Python Programs.

```
class Acc:
    def __init__(self, id):
        self.id = id
        id = 555

acc = Acc(111)
print (acc.id)
```

A)111
B)555
C)222

D)111555
Ans: A

Q13:Predict the output of following Python Programs.

```
counter = {}

def addToCounter(country):
    if country in  counter:
        counter[country] += 1
    else:
        counter[country] = 1

addToCounter('China')
addToCounter('Japan')
addToCounter('china')

print (len(counter))
```

A)3
B)2
C)1
D)0
Ans 3

Q 14: Predict the output of following Python Program

```
count = 1

def doThis():

    global count

    for i in (1, 2, 3):
        count += 1

doThis()

print (count)
```

A)4
B)3
C)2
D)0
ANS: A

Q 15:

```
dictionary = {1:'1', 2:'2', 3:'3'}
del dictionary[1]
dictionary[1] = '10'
del dictionary[2]
print (len(dictionary))
```

A)4
B)3
C)2
D)0

ANS: C

Q 16:What is the output of the following piece of code?

```
class A:
     def __init__(self):
```

```
        self.__i = 1
        self.j = 5

    def display(self):
        print(self.__i, self.j)

class B(A):
    def __init__(self):
        super().__init__()
        self.__i = 2
        self.j = 7

c = B()
c.display()
```

a) 2 7
b) 1 5
c) 1 7
d) 2 5

ANS:C

Q17:Which of the following statements is true?

a) A non-private method in a superclass can be overridden
b) A subclass method can be overridden by the superclass
c) A private method in a superclass can be overridden
d) Overriding isn’t possible in Python
Ans:a

Q18: Which of the following statements is wrong about inheritance?

a) Protected members of a class can be inherited
b) The inheriting class is called a subclass
c) Private members of a class can be inherited and accessed
d) Inheritance is one of the features of OOP
Ans C

Q19:Which of the following is not a type of inheritance?

a) Single-level
b) Double-level
c) Multiple
d) Multi-level

Ans:b

Q20: What is the output of the following piece of code?

```
class A:
    def __init__(self):
        self.__x = 1
class B(A):
    def display(self):
        print(self.__x)
def main():
    obj = B()
    obj.display()
```

```
main()
```
a) 1
b) 0
c) 1 0
d) Error
Ans: d

Q21:Which of the following best describes polymorphism?

a) Ability of a class to derive members of another class as a part of its own definition
b) Means of bundling instance variables and methods in order to restrict access to certain class members
c) Focuses on variables and passing of variables to functions
d) having more than one form.
Ans d

Q22: What is the output of the following piece of code?

```
class A:
    def __init__(self,x=3):
        self._x = x

class B(A):
    def __init__(self):
        super().__init__(5)

    def display(self):
        print(self._x)

def main():
    obj = B()
    obj.display()

main()
```

a) 5
b) 3
c) Error, class member x has two values
d) Error, protected class member can’t be accessed in a subclass
Ans: a

Q23: What is the output of the following piece of code?

```
class A:
    def __str__(self):
        return '1'

class B(A):
    def __init__(self):
        super().__init__()

class C(B):
    def __init__(self):
        super().__init__()

def main():
    obj1 = B()
```

```
    obj2 = A()
    obj3 = C()
    print(obj1, obj2,obj3)

main()
```

a) 1 1 1
b) 1 2 3
c) '1' '1' '1'
d) An exception is thrown

Ans:a

Q 24:A class in which one or more methods are only implemented to raise an exception is called an abstract class. True or False?

a) True
b) False
Ans: b

Q25: Inheritance shows .
a) IS A Relationship
b) HAS A Relationship
c) USES Relationship
d)None of the above.
Ans: a

1. Assuming that there is a file 'data.txt' in current directory, what will be the output of the following Python code?

```
f = None
for i in range(5):
    if i > 2:
        break

with open("data.txt", "r") as f:
    print(f.read())

    f.close()
```

A. Entire contents of the file are displayed
B. Only two lines of the file are displayed
C. Only 3 lines of the file are displayed
D. Error
Answer: A

---

2. What Will Be The Output Of The Following Code Snippet?

```
fo = open("myfile.txt", "r") # there is a file myfile.txt
fo.seek(10)
print ("Contents: ", fo.read())
fo.close()
```

A. first 10 characters of the file are skipped and rest are displayed
B. first 10 characters are displayed
C. first 10 lines are skipped
D. Syntax Error
Answer: A

---

3. What Will Be The Output Of The Following Code Snippet?

```
fo = open("myfile.txt", "w")
fo.writelines(12460)
fo.close()
```

A. TypeError
B. myfile.txt now contains "12460"
C. myfile.txt now contains 12460
D. gives warning and writes the content
Answer. A

---

4. What Will Be The Output Of The Following Code Snippet?

```
with open("hello.txt", "w") as f:
    f.write("Hello World how are you today")

with open('hello.txt', 'r') as f:
    data = f.read()
    for line in data:
        words = line.split()
        print (words)
    f.close()
```

A. Runtime Error
B. Hello World how are you today
C. returns a list of one character on each line
D. Hello
Answer: C

---

5. What Will Be The Output Of The Following Code Snippet?

```
f = open("data.txt", "w")
txt = "This is 1st line\n"
```

```
f.writelines(txt, list)
f.seek(0,0)
line = f.readlines()
print ("Read Line: %s" % (line))
f.close()
```

A. ['This', 'is', '1st', 'line']
B. []
C. Error
D. None
Answer: C

---

6. What Will Be The Output Of The Following Code Snippet?

```
try:
   f = open("testfile", "r")
   f.write("This is the test file for exception handling!!")
except IOError:
   print ("Error: could not find a file or read data")
finally:
   print ("In finally part")
else:
   print ("content is written in the file successfully")
```

A. This is the test file for exception handling!!
   In finally part
B. Error: could not find a file or read data
   In finally part
C. In finally part
   content is written in the file successfully
D. SyntaxError
Answer: D

---

7. What Will Be The Output Of The Following Code Snippet?

```
colors = ['red\n', 'yellow\n', 'blue\n']
f = open('colors.txt', 'w')
f.write(colors)
f.seek(0,0)
for line in f:
    print (line)
f.close()
```

A. red
    yellow
    blue
B. [red\n, yellow\n, blue\n]
C. Error
D. Compilation error
Answer: C

---

8. What gets printed?

```
import re

list1 = ['astronaut', 'astrology', 'astronomy', 'archeology']
```

from the list, if we have to get the strings starting with "astro", which one is the right way to use?

A.
```
for i in list1:
        if re.match("(astro)", i):
            print (i)
```
B.
```
for i in list1:
```

```
        if re.findall("^(astro)", i):
            print (i)
C. print (re.findall("^(astro)", list1))
D. Both A and B
Answer: D
----------------------------------------------------
9. What will be the output of the following Python code?
import re
sentence = 'we are humans and we are just humans'
matched = re.search('(.*(humans))', sentence)
print(matched.group())

A. we are humans and we are just humans
B. ('we are humans', 'humans')
C. ('we are humans and we are just humans')
D. 'we are humans'
Answer: A
----------------------------------------
10. What will be the output of the following Python code?
import re
sentence = 'we are humans and we are just humans'
matched = re.match('(.*?humans)', sentence)
print(matched.group())

A. ('we', 'are', 'humans')
B. (we, are, humans)
C. ('we', 'humans')
D. we are humans
Answer: D
----------------------------------------------------
11. What will be the output of the following Python code?
import re
sentence = 'we are humans'
matched = re.match(r'(.*) (.*)', sentence)
print(matched.groups())

A. ('we are', 'humans')
B. 'are'
C. 'humans'
D. ('we', 'are', 'humans')
Answer: A
----------------------------------------------
12. What will be the output of the following Python code?
import re
sentence = 'we are humans'
matched = re.match(r'(.*?) (.*)', sentence)
print(matched.groups(2))

A. ('we', 'are humans')
B. ('we', 'humans')
C. 'we are'
D. 'are'
Answer: A
------------------------------------------------------------------
13. What will happen when the following Python code is executed?
import re
sentence = 'horses are fast. deers are fastest'
matched = re.sub("horses", "deers", sentence)
print(matched)
```

A. 'horses' and 'deers' are extracted in a list as sub-patterns
B. 'horses' are replaced with 'deers'
C. 'deers' are replaced with 'horses'
D. None of the above
Answer: B
---
14. What will be the output of the following Python code?
```
import re
sentence = 'horses are fast'
matched = re.search("(.*?){6}", sentence)
print(matched.group())
```

A. horses
B. horses are fast
C. 'horses are fast'
D. will print nothing
Answer: D
---
15. What is the output of the line of code shown below?
```
import re
string = "AABCB!@#$1234"
matched = re.search("\W+", string)
print (matched.group())
```

A. AABCB
B. 1234
C. AABCB1234
D. !@#$
Answer: D
---
16. Which regular expression will match the string "JUL-28-87":
A. [A-Z]+.[0-9]+.[0-9]+
B. ([A-Z]+)-([0-9]+)-([0-9]+)
C. \w+\-\d+-\d+
D. All of the above
Answer: D
---
17. What will be the output of the following code?
```
string = "This is python test"
string.replace("python", "perl")
print (string)
```

A. This is perl test
B. This is python test
C. 'str' object is immutable
D. None of the above
Answer: B
---
18. What wll be the output of the following code?
```
string = "@@This@@ is@@ python test@@"
string = string.strip("@")
print (string)
```
A. This@@ is@@ python test
B. This is python test
C. This is python test@@
D. None of the above
Answer: A
---

19. What is the output of the following code?

```
string = "This is python"
id1 = id(string)
string = string.replace("python", "java")
id2 = id(string)
print (id1 == id2)
```

A. True
B. False
C. 0
D. 1
Answer: B

---

20. What is the output of the following code?

```
string = "This is python"
print (string.rindex("is"))
```

A. 2
B. 1
C. Error
D. None of the above
Answer: D

---

21. What is the output of the following code?

```
string = "65 66 67 68 69 70 71"
for i in string:
      print (chr(i), end = " ")
```

A. ABCDEFG
B. Error
C. acdefg
D. None of the above
Answer: B

---

22. What will be the output of the following code?

```
string = "12345678"
s = ""
for i in range(len(string)):
      s = string[i] + s
print (s)
```

A. 87654321
B. 12345678
C. NameError
D. TypeError
Answer: A

---

23. What will be the output?

```
print (('hello' + 'world') + ('how are you?') * 0)
```

A. Error
B. prints nothing
C. helloworld
D. 0
Answer: C

---

24. What will be printed from the following code?

```
string = "PYTHON TEST"
for i in string:
    if i == "N":
        pass
    print (i, end = "")
```

A. PYTHO TEST
B. PYTHON TEST
C. PYTHONTEST
D. Error
Answer: B
---
25. What will the output of the following line?
>>>"PYTHON TEST"[-11:-1:-1]

A. >>>'TSET NOHTY'
B.>>> 'PYTHON TES'
C.>>> PYTHON TEST
D.None of the above
Answer: D

Q1.What is the output of following code?

```
def add(data):
    return data+2
def prod(data):
    return data*2
def main_fun(function1,function2, number_list):
    result_sum=0
    for num in number_list:
        if(num%3==0):
            result_sum=result_sum+function1(num)
        else:
            result_sum=result_sum+function2(num)
    return result_sum
number_list=[1,3,5,6]
print(main_fun(add, prod, number_list))
```

a)25
b)15
c)28
Ans a

Q2. What is the output of following code?

```
i=0
j=10
while i<=10 and j>=1:
    print(i,j)
    j=j-1
    i=i+1
    if(i==j):
        break
```

a)
0 10
1 9
2 3
3 5
4 6
b)
0 10
1 9
2 8
3 7
4 6
c)
0 0
1 9
2 8
3 7
4 6
d)
0 10
1 9
2 8
3 7
4 10
Ans b

Q3.What is the output of following code?

```
i=0
elements=[2,5,6,0]
```

```
try:
    div=elements[4]/elements[3]
except ZeroDivisionError:
    print("infinity")
except IndexError:
    print("Index Error")
except Exception:
    print("0")
finally:
    print("In finally block")
```

a)
Index Error
In finally block
b)
Index Error
c)
In finally block
d)
0
In finally block
Ans a

Q4.What is the output of following code?

```
i=0
import math
num_list=[32.5,44.2,66.6,78.4,99.2]
for i in range(0,len(num_list)):
    num_list[i]=math.ceil(num_list[i])
num_list.reverse()
print(num_list)
```

a)[32, 79, 67, 45, 33]
b)[100, 79, 67, 45, 33]
c)[100, 79, 67, 45, 99]
d)[100, 44, 67, 45, 33]
Ans b

Q5. What is the output of following code?

```
def GM(name):
    print("Good morning "+name)
def GE(name):
    print("Good evening "+name)
def wish(func1,func2,name,time):
    if(time>=6 and time <=15):
        func1(name)
    elif (time>15 and time<=18):
        func2(name)
wish(GM,GE,"Ken",16)
```

a)Error as functions GM() and GE() cannot be passed as arguments to function wish()

b)Good evening Ken

c)Error: func1,func2 are not defined

d)Good morning Ken
Ans b

Q6.What is the output of following code?

```
def g(x):
 (q,d) = (1,0)
 while q <= x:
     (q,d) = (q*10,d+1)
 return(d)
print(g(10))
```
a)10
b)0
c)2
d)None of the above
Ans c

Q7.What is the output of following code?
```
def h(m,n):
 ans = 0
 while (m >= n):
   (ans,m) = (ans+1,m-n)
 return(ans)
print(h(231,8))
```

a)28
b)231
c)232
d)None of the above
Ans a

Q8.Which of the following can help us to find the version of python that we are currently working on?
a) sys.version
b) sys.version()
c) sys.version(0)
d) sys.version(1)

Answer: a

Q9.The output of the functions len(�abc�) and sys.getsizeof(�abc�) will be the same.
a) True
b) False

Answer: b

Q10. What will be the output of the following Python code, if the code is run on Windows operating system?

```
import sys
if sys.platform[:2]== 'wi':
      print("Hello")
```
a) Error
b) Hello
c) No output
d) Junk value

Answer: b

Q11.What will be the output of the following Python code?
```
import sys
sys.stdout.write("hello world")
```

a)hello world
b)None
c)' '
d)Error
Ans a

Q12.What will be the output of the following Python code?
```
import sys
sys.stderr.write("hello")
```
a)hello
b)'hello'
c)"hello"
d)None of the above
Ans a

Q13.What will be the output of the following Python code?
```
import sys
sys.argv
```

a)''
b)Error
c)" "
d)None of the above
Ans d

Q14.What will be the output of the following Python code?
```
import sys
print(len(sys.argv))
```
a)1
b)0
c)Error
d)None of the above
Ans a

Q15. To include the use of functions which are present in the random library, we must use the option:
a) import random
b) random.h
c) import.random
d) random.random

Answer: a

Q16.The output of the following Python code is either 1 or 2.
```
import random
print(random.randint(1,2))
```

a) True
b) False
Answer: a

Q17.What will be the output of the following Python code?
```
import random
print(random.choice(2,3,4))
```
a) An integer other than 2, 3 and 4
b) Either 2, 3 or 4
c) Error
d) 3 only

Answer: c
Q18. What will be the output of the following Python code?

```
import random
print(random.choice([10.4, 56.99, 76]))
```

a) Error
b) Either 10.4, 56.99 or 76
c) Any number other than 10.4, 56.99 and 76
d) 56.99 only

Answer: b

Q19. What will be the output of the following Python code?

```
import random
print(random.choice('sun'))
```

a) sun
b) u
c) either s, u or n
d) error

Answer: c

Q20. state, behavior , and identity belong to ____
a)object
b)class
c)polymorphism
d)none of the above
ans a

Q21. What is the output of the following code?

```
class EmployeeData:
    def __init__(self, sal=0, age=0):
        self.sal = sal
        self.age = age

    def getData(self):
        print("{0}+{1}j".format(self.sal,self.age))

empdata = EmployeeData()
empdata.getData()
```

a)Shows no data
b)0+0j
c)Shows error
d)None of the above
Ans b

Q22.What is the output of the following code?

```
class Computers:
    def __init__(self, price):
        self.price = price

obj=Computers(30000)

obj.quantity=12
obj.keyboard=10
```

print(obj.quantity+len(obj.__dict__))
a)15
b)2
c)22
d)None of the above
Ans a

Q23. Python is object oriented language.
a)True
b)False

Ans a

Q24.Is it possible to developmet web application using python?
a)Yes
b)No

Ans a

Q25.Python programming language is easy to learn.
a)True
b)False

Ans a

Q1. Go through the below code and predict the output:

```
num1=100
num2=0
try:
    result=num1/num2
    print(result)
except ZeroDivisionError:
    print("Zero Division Error Occurred")
```

a) 100
b) 0
c) Zero Division Error Occurred
d) None of Above mentioned

Answer: c

Q2. What will be the output of the code given below?

```
def division(a,b):
    try:
        return int(a)/b
    except TypeError:
        print("Type error")
    except ValueError:
        print("Value error")
    finally:
        print("Finally")
    print("Done")
division('A',10)
```

a) Value error
    Finally
    Done
b) Type error
    Finally
    Done
c) Type error
    Finally
d) Value error
    Finally

Answer: a

Q3.What will be the output of the below code?

```
def find_sum(a,b):
    try:
        print(a+c)
    except NameError:
        print("Function name error")
    finally:
        print("Sum finally")
try:
    find_sum(12,13)
except NameError:
    print("Invocation name error")
finally:
    print("Invocation finally")
```

a) Function name error

b) Function name error
    Sum finally

c) Function name error
    Sum finally
    Invocation finally

d) Function name error
    Sum finally
    Invocation name error
    Invocation finally

Answer: c

Q4. What is the output of the following code snippet?

```
def fun(number):
    if(number<2):
        return 1
    elif(number/2==2):
        return fun(number-1)
    else:
        return (number-1)*fun(number-1)

print(fun(7))
```

a) RuntimeError: maximum recursion depth exceeded in comparison

b) 240

c) 480

d) 60

Answer: b

Q5. What is the output of the following code snippet?

```
import math
num1=234.01
num2=6
num3=-27.01

print("The smallest integer greater than or equal to
num1,",num1,":",math.ceil(num1))
print("The largest integer smaller than or equal to
num1,",num1,":",math.floor(num1))
print("The factorial of num2,",num2,":", math.factorial(num2))
print("The absolute value of num3",num3,":",math.fabs(num3))
```

a) The smallest integer greater than or equal to num1, 234.01 : 235
    The largest integer smaller than or equal to num1, 234.01 : 234
    The factorial of num2, 6 : 720
    The absolute value of num3 -27.01 : 27.01

b) The smallest integer greater than or equal to num1, 234.01 : 234

```
      The largest integer smaller than or equal to num1, 234.01 : 235
      The factorial of num2, 6 : 720
      The absolute value of num3 -27.01 : 27.01

c)    The smallest integer greater than or equal to num1, 234.01 : 235
      The largest integer smaller than or equal to num1, 234.01 : 234
      The factorial of num2, 6 : 720
      The absolute value of num3 -27.01 : 26

d)    The smallest integer greater than or equal to num1, 234.01 : 235
      The largest integer smaller than or equal to num1, 234.01 : 235
      The factorial of num2, 6 : 720
      The absolute value of num3 -27.01 : -27.01

            Answer a
-----------------------------------------------------
Q6. What is the output of the below code?
song="JINGLE Bells jingle Bells Jingle All The Way"
song.upper()
song_words=song.split()
count=0
for word in song_words:
    if(word.startswith("jingle")):
        count=count+1
print(count)
a)    0

b)    3

c)    2

d)    1
            Answer: d
-----------------------------------------------------
Q7.What is the output of the following code snippet?

import math
num_list=[100.5,30.465,-1.22,20.15]
num_list.insert(1, -100.5)
num_list.pop(0)
num_list.sort()
print(math.ceil(math.fabs(num_list[0])))

a)    101

b)    100

c)    30

d)    31

            Answer: a
-------------------------------------------------
Q8.What is the output of the following code snippet?

sample_dict={'a':1,'b':2}
sample_dict.update({'b':5, 'c':10 })
print(sample_dict.get('a'),sample_dict.get('b'),sample_dict.get('c'))
```

a) None 5 10

b) 1 5 10

c) 1 2 None

d) 1 5 None

Answer: b

Q9. The magic methods are recognized by presence of which character?

a) $
b) *
c) &
d) __

Answer: d

Q10.The object type is determined by which method?

a) belongs
b) typeof
c) value
d) type

Answer: d

Q11. What is the output of the following programe?

```
class A:
    def __init__(self,X):
        self.X = X
    def count(self,X):
        self.x = self.X + 1
class B(A):
    def __init__(self,Y = 0):
        A.__init__(self, 3)
        self.Y = Y
    def count(self):
        self.Y += 1
def main():
    obj = B()
    obj.count()
    print(obj.X, obj.Y)
main()
```

a) An exception is thrown
b) 0 1
c) 3 1
d) 3 0

Answer: c

Q12. What is the output of the following programe?

```
class A:
```

```
    def __init__(self,X = 3):
        self.X = X

class B(A):
    def __init__(self):
        super().__init__(5)

    def display(self):
        print(self.X)
def main():
    obj = B()
    obj.display()

main()
```

a) 5
b) Error, class member X has two values
c) Error, protected class member can't be accessed in a subclass
d) 3

Answer: a

Q13. An imported module is stored as:

a) Linked List
b) Byte compiled form
c) Python code file
d) Obfuscated object

Answer: b

Q14. What is the output of the following code?

```
class Demo:
    def __init__(self):
        pass
    def test(self):
        print(__name__)


obj = Demo()
obj.test()
```

a) __main__
b) Exception is thrown
c) Demo
d) __name__

Answer: a

Q15. What is the output of the following code?

```
class Stud:
    def __init__(self,roll_no, grade):
        self.roll_no = roll_no
        self.grade = grade
    def display(self):
        print("Roll no :",self.roll_no,",Grade:",self.grade)
```

```
stud1 = Stud(34,'S')
stud1.age = 7
print(hasattr(stud1, 'age'))
```

a) 7
b) False
c) True
d) Error, as age is not defined

Answer: c

Q16. What is the output of the following code?

```
class A:
    def test1(self):
        print("test of A is called")
class B(A):
    def test(self):
        print("test of B is called");
class C(A):
    def test(self):
        print("test of C is called");
class D(B,C):
    def test2(self):
        print("test of D is called");

obj = D()
obj.test()
```

a) test of B is called

b) test of B is called
test of C is called

c) test of C is called
test of B is called

d) Error, both classes from which D is derived has the same method test()

Answer: a

Q17. Reloading a module when it has already been imported is done by using which function?

a) revise
b) reload
c) refresh
d) clean

Answer: c

Q18. A module imported (using an variant) by import statement, does not imports

a) Double underscore member
b) Variables
c) Methods
d) Global values

Answer: a

```
----------------------------------------
Q19. You are writing an application that uses the sqrt  function. The programe must

      reference the the function using the name squareRoot.
            You need to import the function.
            Which code segment should you use?

a)    from math.sqrt as squareRoot
b)    from math import sqrt as squareRoot
c)    import sqrt from math as squareRoot
d)    import math.sqrt as squareRoot

            Answer: b
----------------------------------------
Q20. You are creating a Python programe that shows a congratulations message
      to employee on their service anniversary.
      You need to calculate the number of years of service and print a
congratulatory
      message.
      You have written the following code. Line numbers are included for reference
only.

      01 start = input("How old were you on your start date?")
      02 end = input("How old are you today?")
      03

      You need to complete the programe.
      Which code should you use at line 03?

a)    print("Congratulations on " + int(end - start) + " years of service!")
b)    print("Congratulations on " + str(end - start) + " years of service!")
c)    print("Congratulations on " + str(int(end) - int(start)) + " years of
service!")
d)    print("Congratulations on " + (int(end) - int(start)) + " years of service!")

                  Answer: c
----------------------------------------
Q21. Predict the output of this programe

import datetime

d = datetime.datetime(2020,4,7)
print('{:%B-%d-%y}'.format(d))
num = 1234567.890
print('{:,.4f}'.format(num))

a)    2020-April-07
      1,234,567.890

b)    April-07-20
      1,234,567.8900

c)    Apr-07-2020
      1,234,567.8900

d) Error

                  Answer: b
----------------------------------------
```

Q22. You need to write code that generate a random float with a minimum value of 0.0 and a maximumvalue of 1.0.
Which statement should you use?

a) random.randrange(0.0, 1.0)
b) random.randrange()
c) random.random()
d) random.randint(0,1)

Answer: c

Q23. The output of the following codes are the same.

```
[x**2 for x in range(10)]
list(map((lambda x:x**2), range(10)))
```

a) True
b) False

Answer:a

Q24.. What will be the output of the following Python code?

```
print(list(map((lambda x:x**2), filter((lambda x:x%2==0), range(10)))))
```

a) [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
b) [0, 4, 16, 36, 64]
c) Error
d) No output

Answer:b

Q25.. What will be the output of the following Python code?

```
print(list(map((lambda x:x^2), range(10))))
```

a) [0, 1, 4, 9, 16, 25, 36, 49, 64, 81]
b) Error
c) [2, 3, 0, 1, 6, 7, 4, 5, 10, 11]
d) No output

Answer: c

1. In file handling, what does the function fileobject.readlines() return?

A. str
B. tuple
C. list
D. none of the above
Answer: C
---
2. In file handling, which is not the method to write a list of strings to a file?

A. fileobj.writelines(iterable)
B. fileobj.write(str) inside a loop
C. fileobj.writelines(str) inside a loop
D. fileobj.write(iterable)
Answer: D
---
3. What Will Be The Output Of The Following Code Snippet?
```
fo = open("myfile.txt", "w")
fo.write(12460)
fo.close()
```

A. Error
B. writes 12460 to the file
C. writes "12460" to the file
D. writes 1, 2, 4, 6, 0 to the file separately
Answer: A
---
4. What Will Be The Output Of The Following Code Snippet?
```
file = open("a.txt", "w")
file.writelines("some string")
file.close()
```

A. Error
B. writes 'some string' to a.txt
C. writes ["some", "string"] to a.txt
D. None of the above
Answer: B
---
5. When we try to modify an object, a new object is created with modified value. What is the type of the object?

A. immutable
B. mutable
C. ordered
D. None
Answer: A
---
6. Which of these is not true for dictionaries?

A. The keys inside the dictionary can be modified
B. The keys inside the dictionary can't be modified
C. Dictionary is mutable
D. The values inside a dictionary can be modified
Answer: A
---
7. What Will Be The Output Of The Following Code Snippet?
The contents of a file "colors.txt" are:
```
red
yellow
```

```
blue

f = open('colors.txt', 'r')
print (f.readlines())

A. red
   yellow
   blue
B. [red\n, yellow\n, blue\n]
C. ['red', 'yellow', 'blue']
D. Compilation error
Answer: B
```

---

8. From the given string, if we want to extract the complete words starting with 'astro', which syntax should be used?

```
string = "astronaut astrophysics astrology"

A. re.match("(astro.*)", string)
B. re.search("(astro)", string)
C. re.findall("(astro)", string)
D. re.findall("(astro.?*)", string)
Answer: D
```

---

9. What will be the output of the following Python code?

```
import re
sentence = 'we are humans and we are just humans'
matched = re.findall('\W+', sentence)
print(len(matched))

A. 7
B. 8
C. -1
D. 0
Answer: A
```

---

10. In regular expression, what is the meaning of the pattern \W?

```
A. non alpha-numeric
B. alpha-numeric
C. alphabets
D. words
Answer: A
```

---

11. In regular expression, what is the meaning of the pattern \w?

```
A. non alpha-numeric
B. alpha-numeric
C. alphabets
D. words
Answer: B
```

---

12. Which of the following is true in regular expressions?

```
A. regular expressions can be applied on lists
B. regular expressions can be used only on strings
C. regular expressions can be used only on strings and lists
D. none of the above
Answer: B
```

---

13. In regular expressions, if we want to include new line in the pattern '.'(dot), which flag has to be used?

A. re.DOTALL
B. re.I
C. re.IGNORECASE
D. None of the above
Answer: A

---

14. What will be the output of the following Python code?

```
import re
sentence = 'horses are fast'
matched = re.search("(\w){5,6}", sentence)
print(matched.group())
```

A. horses
B. horses are fast
C. 'horses are fast'
D. will print nothing
Answer: A

---

15. What does re.search() return?

A. str
B. object
C. list
D. pattern
Answer: B

---

16. Which regular expression will match the strings "JULY-28-87" and "JUL-28-87":

A. re.findall("[A-Z]{4}.\d+.\d+", strings)
B. re.findall("[A-Z]{3}.\d+.\d+", strings)
C. re.findall("[A-Z]+{3,4}.\d+.\d+", strings)
D. re.findall("[A-Z]{3,4}.\d+.\d+", strings)
Answer: D

---

17. What will be the output of the following code?

```
string = "This is python test"
print (id(string))
string.replace("python", "perl")
print (id(string))
```

A. ids before and after replace statement will be same
B. ids before and after replace statement will be different
C. 'str' object is immutable
D. None of the above
Answer: A

---

18. What wll be the output of the following code?

```
string = "@@This@@ is@@ python test@@"
string = string.replace("@@", "", 3)
print (string)
```

A. This@@ is@@ python test
B. This is python test@@
C. This is python test
D. None of the above
Answer: B

---

19. What is the output of the following code?
```
string = "This is python"
print (string.find("python", len(string))
```

A. -1
B. 0
C. error
D. 1
Answer: A

---

20. What is the output of the following code?
```
string = "This is python"
print (string.rfind("is"))
```
A. 2
B. 1
C. 5
D. None of the above
Answer: C

---

21. What is the output of the following code?
```
string = "A B C D E F G"
for i in string:
      print (ord(i), end = " ")
```
A. 65 32 66 32 67 32 68 32 69 32 70 32 71
B. Error
C. 65 66 67 68 69 70 71
D. None of the above
Answer: A

---

22. What will be the output of the following code?
```
string = "12345678"
s = s[::1]
print (s)
```

A. 87654321
B. 12345678
C. NameError
D. TypeError
Answer: B

---

23. What will be the output?
```
inp = "1 2 3 4 5 6".split()
```

A. [1, 2, 3, 4, 5, 6]
B. prints nothing
C. ['1', '2', '3', '4', '5', '6']
D. 1 2 3 4 5 6
Answer: C

---

24. Given a string:
```
string = "PYTHON TEST"
```

which of these works to get the output "TEST"

A. string[string.find(" "):]
B. string[string.find(" ") + 1:]
C. string[" ":]
D. None of the above
Answer: B

---

25. What will be the output of the following line?

```
>>>"PYTHON TEST"[:1:11:1]
```

A. >>>'TSET NOHTY'
B.>>> 'PYTHON TES'
C.>>> PYTHON TEST
D. Error
Answer: D

Q1. Which of the following statement is true?

A. If the number of elements are known in advance, then it is better to use linked list rather than array

B. Deleting an element in the middle is slower in array compared to linked list

C. Any element in a linked list can be directly accessed whereas in array it cannot be accessed directly

D. Inserting an element at the middle is faster in array compared to linked list

ANS: B

Q2. Consider the input_linked_list below:
input_linked_list: 1->4->9->16
What will be the value of the elements in the input_linked_list after the function fun() is invoked by passing the head of the input_linked_list as an argument?

```
def fun(head):
    next_node = head.get_next()
    while(head!=None and next_node != None):
        head.set_data(head.get_data()+next_node.get_data())
        head = head.get_next()
        next_node = head.get_next()
        if(next_node != None):
            head.set_data(head.get_data()+next_node.get_data())
```

Note: Order of displaying the elements is from head to tail.

A. 5 13 25 16

B. 27 22 41 57

C. 5 22 41 16

D. 5 22 41 57

ANS: C

Q3. What is the output of following function when head node of following linked list is passed as input?
1->2->3->4->5

```
def fun(head):
    if(head==None):
        return
    if head.get_next().get_next()!= None:
        print(head.get_data()," ", end='')
        fun(head.get_next())
    print(head.get_data()," ",end='')
```

A. 1 2 3 4 3 2

B. 1 2 3 4 3 2 1

C. 1 2 3 4

D. 1 2 3 4 4 3 2

ANS: B

Q4. What will be the order of elements in the linked list after line 19?

```
def fun(prv,nxt,data):
    if(nxt==None):
        return
    if(nxt.get_data()==data):
        global sample
        sample.add(data)
        prv.set_next(nxt.get_next())
        return
    else:
        fun(nxt,nxt.get_next(),data)

sample=LinkedList()
sample.add(10)
sample.add(20)
sample.add(5)
sample.add(55)
sample.add(38)
sample_head=sample.get_head()
fun(sample_head, sample_head,5)
```

A. 10 20 55 38 5

B. 10 20 55 5 38

C. 10 20 55 38 38

D. 10 20 5 55 38

ANS: A

Q5. What does the below function using the Stack datastructure do?

```
def fun(n):
   stack = Stack(100)
   while (n > 0):
       stack.push(n%10)
       n =int (n/10)
   result=0
   while (not stack.is_empty()):
       result+=stack.pop()
   return result
```

A. Takes a number 'n' as input and returns the sum of its digits

B. Takes a number 'n' as input and returns 0 if it is divisible by 10

C. Takes a number 'n' as input and returns the sum of all its digits divisible by 10

D. Takes a number 'n' as input and divides each digit of the number by 10 and returns the sum of result of each division operation

ANS: A

Q6. Open a word editor and type the following. (Save every time a new character is entered)

(C*D)

Now perform Undo operation (Ctrl + Z) once. What is the resultant expression after the first Undo operation?
A. (C*D)
B. (C*D
C. (C*
D. All character will be erased

ANS: B

Q7. Open a word editor and type the following. (Save every time a new character is entered)
(C*D)

A. Queue
B. Array
C. Stack
D. LinkedList

ANS: C

Q8. John, Mathews and Suzanne are team members working on the same project. The project has one printer which can be shared by all the team members. For a team meeting the project manager has asked all the three members to prepare a report individually and carry a print out of the same. Mathews was able to finish the report first and followed by Suzanne and then John. They gave the print command based on the order in which they finished.
Whose print request will reach the printer first?
A. John
B. Mathews
C. Suzanne
D. Not Mentioned

ANS: B

Q9. John, Mathews and Suzanne are team members working on the same project. The project has one printer which can be shared by all the team members. For a team meeting the project manager has asked all the three members to prepare a report individually and carry a print out of the same. Mathews was able to finish the report first and followed by Suzanne and then John. They gave the print command based on the order in which they finished.
Whose print request will reach the printer last?
A. John
B. Mathews
C. Suzanne
D. Not Mentioned

ANS: A

Q10. John, Mathews and Suzanne are team members working on the same project. The project has one printer which can be shared by all the team members. For a team meeting the project manager has asked all the three members to prepare a report individually and carry a print out of the same. Mathews was able to finish the report first and followed by Suzanne and then John. They gave the print command based on the order in which they finished.
Which data structure do you think is used to store the print request?
A. Queue
B. Array
C. Stack
D. LinkedList

ANS: A

Q11. What does the below function using the Queue data structure do?

```
def fun(n):
   aqueue = Queue(100)
   for num in range(1, n+1):
       aqueue.enqueue(num)
   result=1
   while (not(aqueue.is_empty())):
       num = aqueue.dequeue()
       result*=num
   print(result)
```

A. Prints the factorial of n

B. Prints the sum of numbers from 1 to n

C. Prints 1 irrespective of value of n

D. Prints the product of numbers from 1 to n-1

ANS: A

Q12. What does the below function using the Queue data structure do?

```
def fun(num):
    if(num==0):
        return 0
    else:
        queue.enqueue(num%10)
        res=fun(num//10)
        res=res*10+queue.dequeue()
        return res
queue = Queue(100)
print(fun(123))
```

A. 123

B. 321

C. Infinite recursive call

D. 321123

ANS: B

Q13. Consider list1 and list2 linked lists given below:

list1: 15 -> 18 -> 25 -> 30

list2: 11 -> 14 -> 17 -> 23 -> 32 -> 56

What will be the elements of the queue that is returned by the code snippet given below when list1 and list2 are passed as arguments to function, fun?

```
def fun(input_list1,input_list2):
    temp1 = input_list1.get_head()
    temp2 = input_list2.get_head()
    output_queue = Queue(10)
    while(temp1 != None and temp2 != None):
        if(temp1.get_data() < temp2.get_data()):
            output_queue.enqueue(temp1.get_data())
            temp1 = temp1.get_next()
```

```
        elif(temp1.get_data() > temp2.get_data()):
            output_queue.enqueue(temp2.get_data())
            temp2 = temp2.get_next()
        else:
            output_queue.enqueue(temp2.get_data())
            temp1 = temp1.get_next()
            temp2 = temp2.get_next()
    while(temp1 != None):
        output_queue.enqueue(temp1.get_data())
        temp1 = temp1.get_next()
    while(temp2 != None):
        output_queue.enqueue(temp2.get_data())
        temp2 = temp2.get_next()
    return output_queue
```

Note: Order of displaying the queue elements is from front to rear.

A. 56,32,30,25,23,18,17,15,14,11

B. 11,14,17,23,32,56,15,18,25,30

C. 11,14,15,17,18,23,25,30

D. 11,14,15,17,18,23,25,30,32,56

ANS: D

Q14. A travel agent plans trips for tourists from Chicago to Miami. He gives them three ways to get from town to town: airplane, bus, train.Once the tourists arrive, there are two ways to get to the hotel: hotel van or taxi. The cost of each type of transportation is given in the table below.Which data structure can be used to represent all the possible ways to go from Chicago to Miami?

Transportation Type	Cost
Airplane	$ 350
Bus	$ 150
Train	$ 225
Hotel Van	$ 60
Taxi	$ 40

A. Tree
B. Graph
C. Queue
D. Stack

ANS: B

Q15. In an ATM, a customer can get a mini statement of his/her last 5 transactions. Which is the most appropriate data structure to model the mini statement?

A. LIST
B. Queue
C. Stack
D. Graph

ANS: C

Q16. Which is the most appropriate data structure to model the token for cash withdrawal in a bank? 1st token is provided to the first person who has arrived to withdraw money. The next person is provided the 2nd token etc. The person who got the first token will be serviced first.

A. LIST
B. Queue
C. Stack
D. Graph

ANS: B

Q17. Ramya wants to model all the items in a retail store under various categories and sub-categories. Which of the below data structures can be used to optimally represent it?

A. TREE
B. Queue
C. Stack
D. Graph

ANS: A

Q18. The following values are to be stored in a hash table (arriving in the order shown) using the hash function, h(k)= k%5.
81, 20, 34, 42, 21, 45
Assume that the hash values are stored in ascending order. Identify whether collision will occur while mapping the values using the hash function.

A. Collision will occur at position 0,1
B. Collision will occur at position 0
C. Collision will occur at position 1
D. Collision will occur at position 3

ANS: A

Q19. The following values are to be stored in a hash table: 24, 35, 45, 90, 43. Which of the below hash-functions is the best?

A. h(k)= k%5

B. h(k)= k%4

C. h(k)= k%3

D. h(k)= k%2

ANS: B

Q20. What is the output of the following code snippet?
input_stack(top-bottom): 2 1 9 6 7

```
def fun(input_stack):
    output_queue=Queue(input_stack.get_max_size())
    temp_queue=Queue(input_stack.get_max_size())
    while(not input_stack.is_empty()):
        data=input_stack.pop()
        if(data%2==0):
            output_queue.enqueue(data)
        else:
            temp_queue.enqueue(data)
    temp_data=0
    while(not temp_queue.is_empty()):
        temp_data+=temp_queue.dequeue()
```

```
        output_queue.enqueue(temp_data)
    output_queue.display()
```
Note: Order of displaying the queue elements is from front to rear.

A. 1 2 6 7 9

B. 2 6 1 10 17

C. 2 8 1 9 7

D. 1 10 17 2 6

ANS: B

Q21. Consider the stack given below:
input_stack(top-bottom): 5 4 3 2 1
What will be the elements of the stack that is returned by the code snippet given below when input_stack is passed as an argument to function, fun? Assume the size of the input_stack to be 5.

```
def fun(input_stack):
    num=input_stack.get_max_size()-1
    num1=1
    while(num>0):
        top_element=input_stack.pop()
        temp_stack=Stack(input_stack.get_max_size())
        num2=1
        while(num2<=num1):
            element=input_stack.pop()
            temp_stack.push(element+top_element)
            num2+=1
        while(not temp_stack.is_empty()):
            input_stack.push(temp_stack.pop())
        input_stack.push(top_element)
        num1+=1
        num-=1
    return input_stack
```
Note: Order of displaying the stack elements is from top to bottom.

A. 12 7 5 3 1

B. 29 24 18 12 6

C. 5 7 5 3 1

D. 5 24 18 12 6

ANS: D

Q22 Based on the number guessing game, answer the following
Assume that the numbers in the number guessing game are stored in a list and there are 30 of them in the list. If the number to be guessed is stored at index position 0, the number can be found in one guess..

A. True

B. False

ANS: A

Q23. Based on the number guessing game, answer the following:
Assume that the numbers in the number guessing game are stored in a list and there are 30 of them in the list. How many guesses will be required to find a number stored at index position 24 in the list?

A. 24

B. 25

C. 30

D. 1

ANS: B

Q24. Using this strategy if you have to find 25 from a list containing numbers from 1 to 50 arranged in ascending order, how many guesses do you have to make?
A. 0

B. 1

C. 25

D. 50

ANS: B

Q25. Using this strategy if you have to find 50 from a list containing numbers from 1 to 50 arranged in ascending order, how many guesses do you have to make?

A. 6

B. 8

C. 4

D. 2

ANS: A

Q1: What is setattr() used for?
A. To access the attribute of the object
B. To set an attribute
C. To check if an attribute exists or not
D. To delete an attribute
Answer: Option B

Q2: What are the methods which begin and end with two underscore characters called?
A. Special methods
B. In-built methods
C. User-defined methods
D. Additional methods
Answer: Option A

Q3:Which of these is a private data field?
```
def Demo:
def __init__(self):
    __a = 1
    self.__b = 1
    self.__c__ = 1
    __d__= 1
```
A. __a
B. __b
C. __c__
D. __d__
Answer: Option B

Q4:When will the else part of try-except-else be executed?
A. always
B. when an exception occurs
C. when no exception occurs
D. when an exception occurs in to except block
Answer: Option C

Q5:What is the output of the code shown below?

```
def f(x):
    yield x+1
    print("test")
    yield x+2
g=f(9)
```
A. Error
B. test
C. test1012
D. No output
Answer: Option D

Q6: The output of the code shown below is:

```
int('65.43')
```

A. ImportError
B. ValueError
C. TypeError
D. NameError
Answer: Option B

Q7..:Which of the following statement(s) is(are) true?
A. Polymorphism means having more than one form.

B. Class is a template for object.
C. inheritance shows IS A relationship
D. All of the above

Answer: Option D

Q8:Which function overloads the == operator?
A. __eq__()
B. __equ__()
C. __isequal__()
D. none of the mentioned
Answer: Option A

Q9:What is the output of the following piece of code?

```
class Demo:
    def __init__(self):
        self.x = 1
    def change(self):
        self.x = 10
class Demo_derived(Demo):
    def change(self):
        self.x=self.x+1
        return self.x
def main():
    obj = Demo_derived()
    print(obj.change())

main()
```

A. 11
B. 2
C. 1
D. An exception is thrown
Answer: Option B

Q10: What is the output of the code shown below?

```
def f1():
    x=100
    print(x)
x=+1
f1()
```

A. Error
B. 100
C. 101
D. 99
Answer: Option B

Q11:On assigning a value to a variable inside a function, it automatically becomes a global variable. State whether true or false.
A. True
B. False

Answer: Option B

Q 12: Which of the following statement(s) is(are) true?
A. List is an object
B. int is an object

C. float is an object
D. All of the above
Answer: Option D

Q 13: What is the output of the code shown below?
```
l1=[1, 2, 3, [4]]
l2=list(l1)
print(id(l1)==id(l2))
```
A. True
B. False
C. Error
D. Address of l1
Answer: Option B

Q14: What is the output of the following code ?

```
example = "snow world"
example[3] = 's'
print (example)
```
A. snow
B. snow world
C. Error
D. snos world
Answer: Option C

Q15: What is the output of following code?
```
print(4/2**2**2)
```
A. 0.25
B. 0.250000
C. error
D. None of the above
Answer: Option A

Q16: What is the output of the following?
```
print('*', "abcdef".center(7), '*')
```

A. * abcdef*
B. * abcdef *
C. *abcdef *
D. * abcdef*
Answer: Option B

Q17: What is the output of the following?

```
print('abcd'.translate({'a': '1', 'b': '2', 'c': '3', 'd': '4'}))
```
A. abcd
B. 1234
C. error
D. none of the mentioned
Answer: Option A

Q18:What is the output of following code
```
if x=15 and y=12:
    pass
```
A. True
B. False
C. error

Answer: Option C

Q 19: What is the output of the code shown below?

```
print(not(3>4))
print(not(1&1))
```

A. True
   True
B. True
   False
C. False
   True
D. False
   False
Answer: Option B

Q 20:What is the output of the following?

```
i = 2
while True:
    if i%3 == 0:
        break
    print(i,end=" ")
    i += 2
```

A. 2 4 6 8 10 …
B. 2 4
C. 2 3
D. error
Answer: Option B

Q 21:What is the output of the following?

```
x = "abcdef"
i = "a"
while i in x:
    x = x[:-1]
    print(i, end = " ")
```

A. i i i i i i
B. a a a a a a
C. a a a a a
D. none of the mentioned
Answer: Option B

Q22:What is the output of the following?

```
x = "abcdef"
i = "i"
while i in x:
    print(i, end=" ")
```

A. no output
B. i i i i i i …
C. a b c d e f
D. abcdef
Answer: Option A

Q23: What is the output of the following?

```
x = 'abcd'
```

```
for i in x:
    print(i.upper(),end=" ")
```

A. a b c d
B. A B C D
C. a B C D
D. error
Answer: Option B

Q24:What is the output of the following?

```
d = {0: 'a', 1: 'b', 2: 'c'}
for x in d.values():
    print(x,end=" ")
```

A. 0 1 2
B. a b c
C. 0 a 1 b 2 c
D. none of the mentioned
Answer: Option B

Q25..: What is the output of the following?

```
a = [0, 1, 2, 3]
for a[0] in a:
    print(a[0],end=" ")
```

A. 0 1 2 3
B. 0 1 2 2
C. 3 3 3 3
D. error
Answer: Option A

Q1
When the values of a=7, b=6 and c=3, which among the following logical expressions would be FALSE?

a) (a+b)>(c) and (a*b+c)>=(c+a)

b) (a*b)>(c*a) and (a*b)<=(a*b*c)

c) (a*c)>(a*b*c) or (a*c)<=(b*c)

d) not((a*c)>(c*a) and (a*c)<=(b*c))

Answer: c

Q2
What would be the output of the below Python code?

```
list1 = [10,20,0,40,0]
def test():
    try:
        i=3
        if(list1[i]/list1[i+1]>1):
            value=i+1
    except ZeroDivisionError:
        print("1")
    except IndexError:
        print("2")
    finally:
        print("4")
    print("5")
test()
```

a) 1
5
b) 1
4
5
c) 2
4
5
d) 1
4

Answer:b

Q3
Consider the marks list given below.

Identify the Python code to be written in the Line 1 such that the output is [“FA2”,95]

```
marks=["FA1",80,"FA2",85,"FA3",95]
report=marks[-4:]
#Line1_____________
print(report)
```

a) report=report[:1]+marks[5:]
b) report=marks[2:3]+marks[-2:]
c) report=marks[-4:-2]
d) report=report[:2]

Answer: a

Q4
What would be the output of following Python code?

```
name1 = "Roger"
name2 = "Robert"
def swap_name(name1,name2):
    temp = name1
    name1 = name2
    name2 = temp
print("Before swapping: name1="+name1+" name2="+name2)
swap_name(name1, name2)
print("After swapping: name1="+name1+" name2="+name2)
```

A) Before swapping: name1=Roger name2=Robert
   After swapping: name1=None name2=None

B) Before swapping: name1=Roger name2=Robert
   After swapping: name1=Robert name2=Robert

C) Before swapping: name1=Roger name2=Robert
   After swapping: name1=Roger name2=Robert

D) Before swapping: name1=Roger name2=Robert
   After swapping: name1=Robert name2=Roger

Answer:c

Q5
What will be the output of the following Python code?

```
import datetime
d=datetime.date(2020,02,10)
print(d)
```

a) Error
b) 2020-02-10
c) 10-02-2020
d) 02-10-2020

Answer:a

Q6
What is the output of the below Python code?
Note:Assume that necessary imports have been done

```
temp = ['Mysore','Bangalore','Pune','Chennai']
temp.sort()
count1 = len(temp[0])
count2 = len(temp[-1])
final_var = math.ceil(count1/count2)
print(final_var)
```

a) 3
b) 2
c) 1

d) 4

Answer:a

Q7 of 25

What would be the output of the below Python code?

```
import re
temp = "indiparker@ind.com"
temp1 = ''
if(re.search(r'@ind\.',temp)):
    temp1 = re.sub(r'i\w+(\.com)',r'edu\1',temp)
print(temp1)
```

a) eduparker@edu.com
b) indiparker@edu.com
c) eduparker@ind.com
d) The code will not result in any output as there is no match

Answer: b

Q8

What would be the output of the below Python code?

```
f = lambda x: (x*2)%3!=0
def pick(f, list1):
    for item in list1:
        if(not f(item)):
            list1.remove(item)
list=[1,2,3,4,5,6,7,8,9]
pick(f,list)
print(list)
```

a) [3, 6, 9]
b) [1, 2, 4, 5, 7, 8]
c) [2, 4, 6, 8]
d) [1, 3, 5, 7, 9]

Answer:b

Q9

What would be the output of the below Python code?

```
var = 200
if(var > 200):
    print("Within first block")
    if(var == 150):
        print("which is 150")
    elif(var == 100):
        print("Which is 100")
elif(var > 50):
    print("Within second block")
    if(var%5 == 0):
        print("Which is multiple of 5")
    elif(var%10==0):
        print("Which is multiple of 10")
    else:
        print("Neither multiple of 5 nor multiple of 10")
else:
```

```
    print("Could not find true expression")
print("Good bye!")
```

a) Within second block
   Which is multiple of 5
   Good bye!

b) Could not find true expression
   Good bye!

c) Within second block
   Neither multiple of 5 nor multiple of 10
   Good bye!

d) Within first block
   Which is 100
   Good bye!

Answer:a

Q10
What does the below Python code do?

```
for i in range(1,6):
    for j in range(1,6):
        if(i%j!=0):
            pass
        elif(j<i):
            continue
        else:
            print(i*j)
```

a) Prints the square of numbers from 1 to 6
b) Prints the square of numbers from 1 to 5
c) Prints prime numbers from 1 to 6
d) Prints prime numbers from 1 to 5

Answer:b

Q11
What will be the output of the below Python code?

```
num1 = 11//10
num2 = 11%10
num3 = 20
num4 = 40
num5 = 5
if(num3>num4):
    if(num3>num5):
        print(num5*num4/num3)
    else:
        print(num3/num5)
else:
    if(num1==num2):
        print(num4/num3)
    else:
        print(num4/num5)
```

a) 2.0

b) 4.0
c) 10.0
d) 8.0

Answer: a

Q12
What would be the output of the below Python code?

```
i=0
j=10
while i<=10 and j>1:
    print(i, j)
    j = j - 1
    i = i + 1
    if(i==j):
        break
```

a) 0 10
   1 9
   2 8
   3 7
   4 6
   5 5

b) 1 9
   2 8
   3 7
   4 6

c) 0 10
   1 9
   2 8
   3 7
   4 6

d) 1 9
   2 8
   3 7
   4 6
   5 5

Answer: c

Q13
What is the output of the below Python code?

```
temp = "Hello? how are you?"
if(temp.isdigit()):
    temp+="fine"
else:
    for i in range(len(temp)):
        if(temp[i]=='?'):
            final_val = temp[:i]
            break
if(final_val.endswith("u")):
    final_val.replace('you', 'u')
else:
    final_val=final_val.upper()
```

```
print(final_val)
```

a) HELLO?
b) HELLO
c) fine
d) Hello? how are u?

Answer: b

Q14
What is the output of the below Python code?

```
code = "jack and jill went up the hill"
for temp in code.split():
    if(temp.endswith("ill")):
        print("Count :",code.count("ill"))
        break
code = code.replace("j", "m")
for temp in code.split():
    if(len(temp)%2!=0):
        k = (str)(temp)
        code = code.replace(k,k.upper())
print(code)
```

a) Count : 2
   mack AND mill went up THE hill

b) Count : 3
   Mack and Mill went up the Hill

c) Count : 3
   MACK and MILL WENT UP the HILL

d) Count : 1
   mack and mill went up the hill

Answer: a

Q15
Consider the below Python code:

```
def fun(n):
    if n < 1:
        return 0
    elif n%2 == 0:
        return fun(n-1)
    else:
        return n + fun(n-2)
```

From the given options, identify the functions calls which would return the value 25.
Choose TWO CORRECT options.

a) fun(11)
b) fun(12)
c) fun(9)
d) fun(13)

Answer: c

Q16

Identify the Python code to be written in lines Line 1, Line 2 and Line 3 so as to get the below output.

```
Emp id : 100
Emp id : 101
Emp Count 2
```

```
class Employee:
    __count = 100
    def __init__(self,name):
        self.name = name
        #Line 1
        #Line 2
    @staticmethod
    def totalcount():
        #Line 3
emp1 = Employee("Jack")
print("Emp id :",emp1.id)
emp2 = Employee("Tom")
print("Emp id :",emp2.id)
Employee.totalcount()
```

Note: Line numbers are for reference only.

a) Line1: Employee.__count=100
    Line2: self.id=Employee.__count+1
    Line3: print("Emp Count",Employee.__count-100)

b) Line1: self.id=Employee.__count
    Line2: Employee.__count+=1
    Line3: print("Emp Count",Employee.__count-100)

c) Line1: self.id=100
    Line2: Employee.__count+=1
    Line3: print("Emp Count",Employee.__count)

d) Line1: self.id=Employee.__count+1
    Line2: Employee.__count+=1
    Line3: print("Emp Count",Employee.__count)

Answer: b

Q17

Consider the Python code given below.

```
class Base:
    def __init__(self):
        self.__value = 200
    def get_value(self):
        return self.__value+1
class Child(Base):
    def get_num(self):
        num = 100
        return num
class GrandChild(Child):
```

```
    def __init__(self):
        self.num = 200
child = Child()
grandchild = GrandChild()
print(grandchild.get_value())
```

What changes should be done in the above code so as to get the output as 201?

a) Make the instance variable of Base class public
b) Add a constructor with statement super().__init__() in Child class
c) Add statement super().__init__() in the constructor of GrandChild class
d) Add a constructor in the Child class and initialize num to 201

Answer:c

Q18
Consider the Python code given below.

```
class ClassA:
    def __init__(self):
        self.__var_one = 100

    def method_one(self):
        return self.__var_one

class ClassB(ClassA):

    def __init__(self,var_two):
        #Line 1__________
        self.__var_two = var_two
    def method_two(self):
        final_val = self.__var_two + self.method_one() #Line 2
        return final_val
bobj = ClassB(50)
print(bobj.method_two())
```

What changes should be done in the above code so as to get the output as 150?
Note: Line numbers are for reference only

a) At Line 1 add: super().__init__()
b) At Line 1 add: super().__init__(var_two)
c) No need to make any change in the code, it will produce 150 as output
d) No need to add anything at Line1.
 Change Line2 as:
final_val=self.__var_two + super().method_one(

Answer: a

Q19.
What will be the output of the Python code given below?

```
class ExceptionOne(Exception):
    pass
class Test:
    counter = 1
    @staticmethod
    def perform_test(temp_list, n):
        try:
            if(temp_list[n]>=5):
                Test.counter += 1
```

```
                temp_list[n] -= 2
                raise ExceptionOne()
                temp_list[n] = 5
            else:
                raise Exception()
        except Exception:
            Test.counter -= 5
        except ExceptionOne:
            Test.counter += 5
        print("Data:",temp_list[n])
try:
    t = Test()
    t.perform_test([2,4,7,5,1],3)
finally:
    print("Counter:",Test.counter)
```

a) Data: 3
    Counter: -3

b) Data: 3
    Counter: 7

c) Counter: -3

d) Data: 3

Answer: a

Q20

Consider the Python code given below.

```
class Alpha:
    def one(self):
        return 10
    def two(self):
        return self.one()

class Beta(Alpha):
    def one(self):
        return 10
    def three(self):
        return 10

class Gamma(Beta):
    def one(self):
        return 10
    def four(self):
        return self.one()
    def three(self):
        return self.two()
    def five(self):
        return 10
gobj = Gamma()
num1 = gobj.two() + gobj.three() + gobj.four()
num2 = gobj.three() + gobj.four() + gobj.one()
num3 = gobj.one() + gobj.two() + gobj.three()
```

Which of the following statement(s) is/are TRUE?

i) Value of num1, num2, num3 will be the same
ii) Error in class Gamma as it cannot override method one() which has already been overriden by parent class Beta
iii) Error in class Gamma as method three() is giving call to method two() using super() which is not written in parent class Beta
iv) Value of num1 and num2 will be the same but num3 will be different

a) Only iv)
b) Both ii) and iii)
c) Only i)
d) Only ii)

Answer: c

Q21
Consider the Python code given below.

```
class ClassAA:
    def method1(self):
        return 10
    def method2(self):
        return 20
class ClassBB:
    def method3(self):
        return 60
    def method4(self):
        return 70

class ClassCC(ClassAA):
    def method1(self):
        return 30
    def method4(self):
        return 40

class ClassDD(ClassBB):
    def method1(self):
        return 50
    def method2(self):
        return 60

obj1 = ClassCC()
obj2 = ClassDD()
```

Match the following print statements with corresponding output

Print Statements	Outputs
1. print(obj1.method2()+obj2.method4())	A. 100
2. print(obj1.method1()+obj2.method1())	B. 80
3. print(obj1.method4()+obj2.method3())	C. 90

a) 1-C, 2-B, 3-A
b) 1-A, 2-B, 3-C
c) 1-A, 2-C, 3-A
d) 1-C, 2-A, 3-A

Answer: a

Q22
```
import datetime
x = datetime.datetime(2018, 2, 1)
print(x.strftime("%B"))
```

a) Feb
b) February
c) Jan
d) January

Answer: b

Q23
To convert a date which is in string format back to date format,
which function do we use ?
a) now()
b) strftime()
c) strptime()
d) strdatetime()

Answer: c

Q24
What will be the output of the following Python code if the system date is 18th June, 2019 (Tuesday)?

```
import datetime
tday=datetime.date.today()
print(tday)
```
a) 18-06-2019
b) 06-18-2019
c) 2019-06-18
d) Error

Answer: c

Q25
What will be the output of the following Python code if the system date is 13th February, 2020 (Thursday)?
```
import datetime
tday=datetime.date.today()
print(tday.isoweekday())
```

a) Thu
b) Thursday
c) 4
d) 5

Answer: c

Q1. What is the output of following code?

```
print(type(type()))
```

a)Error

b)Null

c)None

d)None of the above

Answer a

Q2.What is the output of following code?

```
print(type(type))
```

a) <class 'type'>

b)Error

c)<class ‘None’>

d)None of the above

Answer a

Q3 What is the output of following code?

```
class cc:
   def f1(self,a,b):
      self.a=a
      self.b=b
      return self.a+self.b
o=new cc()
print(o.f1(4,4))
```

a)8

b)Error

c)4

d)None of the above

Answer b

Q4. What is the output of following code?

```
list1=[None]*3
print(list1)
```

a) [None, None, None]

b)[ ]

c)[‘ ‘,’ ‘,’ ‘]

d)None of the above

Answer a

Q5 What is the output of following code?

```
string = "my name is x"
for i in string:
    print (i, end=", ")
```

a)my name is x

b) m, y, , n, a, m, e, , i, s, , x,

c) "my name is x"

d) None of the above

Answer b

Q6 . What is the output of following code?

```
l=[1,'0', 2, 0, 'hello', '', []]
print(list(filter(bool, l)))
```

a) [1, '0', 2, 'hello']

b)Error

c)[ ]

d)None of the above

Answer a

Q7.What is the output of following code?

```
print([] or {})
```

a) {}

b)[]

c)True

d)False

Answer a

Q8. What is the output of following code?

```
class Truth:
        pass
x=Truth()
print(bool(x))
```

a)None

b)Error

c) True

d)None of the above

Ans c

Q9.

```
print("-%5d0",989)
```

a) -%5d0 989

b)Error

c)-09890

d)98900

Ans a

Q10. What is the type of each element in sys.argv?

a) set

b) list

c) tuple
d) string

Answer: d

Q11. What is called when a function is defined inside a class?
(A) Module
(B) Class
(C) Another Function
(D) Method
Answer: (D)

Q12 What is the output of following code?

print(~~5)

a)5

b)-6

c)101

d)None of the above

Answer a

Q13.

list1=[]

list1[0]=100

print(list1)

a)100

b)[100]
c)Error

d)None of the above

Answer c

Q14. What is the output of following code?

class c1:

```
    @classmethod
    def m1(cls):
        print("hello")
ob=c1()
ob.m1()
```

a)hello

b)Address of object ob

c)Error

d)None of the above

Answer a

Q15. What is the output of following code?

```
class myclass:
    @staticmethod
    def m1():
        print("hello")
ob=myclass()
ob.m1()
```

a)hello

b)error

c)Address of ob object

d)None of the above

Answer a

Q16. What is the output of following code?

```
class class1:
    def __init__(self,a,b,c):
```

```
        self.a=a
        self._b=b
        self.__c=c
class class2:
    pass
o=class1(1,2,3)
print(self.a)
```

a)Error

b)1

c)2

d)None of the above

Answer a

17. What is the output of following code?

```
class class1:
    def __init__():
        print("class1's __init__")
class class2(class1):
    def __init__():
        print("class2's __init__")
ob=class2()
```

a) class1's __init__

b)Error

c) class2's __init__

d)None of the above

Answer b

18. What is the output of following code?

```
class class1:
   def __init__(me,a):
      me.a=a
      print(a)
ob=class1(10)
```

a)10

b)Error

Answer a

19. What is the output of following code?

```
a=1,2,3,4
print(a)
```

a) (1, 2, 3, 4)
b)1
c)4
d)Error

Answer a

20. What is the output of following code?

```
x=2
y=x<<2
y=~y+1
print(y)
```

a)4
b)-4
c)-8
d)None of the above

Answer c

Q21. What is the output of following code?

```
class c1:
   c=0
   def __init__(self):
      c=c+1
      print(c)
o=c1()
print(o.c)
```

a)Error

b)0
c)1
d)None of the above
Ans a

Q22. Python language was developed by_____.
a)Monty Python
b)Rossum
c)James
d)None of the above
Ans b

Q23. In the following code, X is ____.
X=(123)
a)integer
b)tuple
c)set
d)None of the above
Ans a

Q24. Python is_____.
a)low level language
b)object oriented language
c)scripting language
d)both b and c
Ans d

Q25. Python language is platform dependent.
a)True
b)False
Ans b

Q1. What is the value of a, b, c in the given below code?

a, b = c = 2 + 2, ''Hello''

a) a=4, 'Hello'
b= 4, 'Hello'
c= 4, 'Hello'

b) a=2
b= 'Hello'

c=4, 'Hello'

c) a=4
b= 'Hello'
c=4, 'Hello'

d) a=4
b= 'Hello'
c= NULL.

Answer: c

Q 2 - Find the output of the code?

```
def f(a, b =1, c =2):
print('a is: ',a,'b is: ', b,'c is: ', c)
f(2, c =2)
f(c =100, a =110)
```

a) a is: 2 b is: 1 c is: 2

a is: 110 b is: 1 c is: 100

b) a is: 2 b is: 2 c is: 2

a is: 110 b is: 2 c is: 100

c) a is: 0 b is: 2 c is: 2

a is: 110 b is: 0 c is: 100

d) error

Answer: d

Q 3 - Find the output of the code?

```
class test:
  def __init__(self):
    print("Hello World")
  def __init__(self):
    print ("Bye World")
```

obj=test()
(A) Hello World
(B) Compilation Error
(C) Bye World
(D) Ambiguity

Answer: C

Q 4 - What is the output of the following program?

```
from math import *
a = 2.13
b = 3.7777
c = -3.12
print(int(a), floor(b), ceil(c), fabs(c))
```

a) 2 3 -4 3
b) 2 3 -3 3.12
c) 2 4 -3 3
d) 2 3 -4 3.12

Answer: B

Q5. What is the output of the following program?

```
import re
s=re.matches(r'dog','dog dog and cat')
print(s)
print(s.group(0))
```

a)Error
b)dog
c)(dog)
d[dog]
Ans a

Q 6- What will be the output of the following Python code?

```
class change:
```

```
    def  __init__(self, x, y, z):
        self.a= x - y * z

x =change(1,2,3)
y =getattr(x,'a')
setattr(x,'a', y)
print(x.a)
```

a)6
b)-5
c)Error
d) 0

Answer: B

Q 7 - What is the output of the following code?

```
print(type(print("hello")))
```

a) Null
b) <class int>
c) <class str>
d) None of the above

Answer: d

Q8- Inheritance shows

a) IS A Relationship
b) HAS A Relationship
c) USES Relationship
d)None of the above.

Answer: a

Q9 - Concept of generalization can be seen in.

a) Polymorphism
b) Inheritance
c) Encapsulation

d) None of the above

Answer: b

Q10 - USES Relationship is known as

a) Composition

b) Association

c)Specialization

d)Generalization

Answer: b

Q11 - What is the output of the following piece of code?

```
class Demo:
   def __init__(self):
      self.x = 1
   def change(self):
      self.x = 10
class Demo_derived(Demo):
   def change(self):
      self.x=self.x+1
      return self.x
def main():
   obj = Demo_derived()
   print(obj.change())

main()
```

a) 11
b) 2
c) 1
d) An exception is thrown

Answer: b

Q12 - What is the output of the following piece of code?

```
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 of C called")
        super().test()

class D(B,C):
    def test2(self):
        print("test of D called")

obj=D()
obj.test()
```

a) test of B called
   test of C called
b) test of C called
   test of B called
c) test of B called
   test of C called
   test of A called
d) Error, all the three classes from which D derives has same method test()

Answer: c

Q13 - What is the output of the following code?

```
class Test:
    def __init__(self):
        self.x = 0

class Derived_Test(Test):
    def __init__(self):
        self.y = 1

def main():
    b = Derived_Test()
    print(b.x,b.y)

main()
```

a) 0 1
b) 0 0
c) Error
d) 1 0

Answer: c

Q14 - What will be the output of the following Python code?

```
elements=0,1,2

def incr(x):

   return x+1

print(list(map(incr,elements)))
```

a)[1,2,3]
b)[0,1,2]
c)error
d) none of the mentioned

Answer: a

Q15- Which of the following matrices will throw an error in Python?

a)
```
A = [  [1, 2, 3],
       [4, 5, 6],
       [7, 8, 9]  ]
```
b)
```
B = [   [3, 3, 3]
       [4, 4, 4]
       [5, 5, 5]  ]
```
c)
```
C = [   (1, 2, 4),
       (5, 6, 7),
        (8, 9, 10) ]
```
d)
```
D = [   2, 3, 4,
       3, 3, 3,
       4, 5, 6 ]
```

Answer: b

Q16 - What is the output of the code shown below?

```
set1 = {1, 2, 3}
set2 = set1.add(4)
print(set2)
```

a) {1, 2, 3, 4}
b) {1, 2, 3}
c) Invalid Syntax
d) None

Answer: d

Q17 - What is the output of this code?

```
a,b = 1,0
a = a ^ b
b = a ^ b
a = a ^ b
print(a)
```

a) 0
b) 1
c) 2
d) This code will raise a runtime error

Answer: a

Q 18 - What is the value of this expression?

```
print(2**2**3**1+5)
```

a) 12
b) 64
c) 261
d) This code will raise a runtime error

Ans c

Q 19 - What is the output of the following code?

```
val = 154
while(not(val)):
   val **=2
else:
   val//=2
print(val)
```

a) 77
b) 154
c) 11858
d) 23716
e) None of above

Answer: a

Q 20 - How many stars does this program output?

```
print("***"*0)
```

a)3
b)0
Ans b

Q 21. What is the output of the following code?

```
>>>.1+.1+.1==.3
```

a)True
b)False

Ans b

Q22. What is the output of the following code?

```
>>> True==""
```

a)False
b)True
Ans a

Q23. What is the output of the following code?

>>> False==()or[]
a)None
b)False
c)True
d)[ ]

Ans d

Q24. What is the output of the following code?

>>> True==()or[]
a)None
b)False
c)True
d)[ ]

Ans d

Q25. What is the output of the following code?

>>> True==()and[]
a)False
b)True
Ans a

61. What will be the output of the following Python code?

```
count={}
count[(1,2,4)] = 5
count[(4,2,1)] = 7
count[(1,2)] = 6
count[(4,2,1)] = 2

tot = 0

for i in count:
    tot=tot+count[i]

print(len(count)+tot)
```

a) 25
b) 17

c) 16
d) Tuples can’t be made keys of a dictionary

Answer: c

62. What is the output of the following code?

```
a={}
a[2]=1
a[1]=[2,3,4]
print(a[1][1])
```

a) [2,3,4]
b) 3
c) 2
d) An exception is thrown

Answer: b

63. What will be the output of the following Python code?

```
a={i: i*iforiinrange(6)}
print (a)
```

a) Dictionary comprehension doesn’t exist
b) {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6:36}
c) {0: 0, 1: 1, 4: 4, 9: 9, 16: 16, 25: 25}
d) {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25}
Answer: d

64. Which of the statements about dictionary values if false?

a) More than one key can have the same value
b) The values of the dictionary can be accessed as dict[key]
c) Values of a dictionary must be unique
d) Values of a dictionary can be a mixture of letters and numbers

Answer: c

---

65. What will be the output of the following Python code snippet?

```
total={}
def insert(items):
if items in total:
```

```
        total[items] +=1
else:
        total[items]=1

insert('Apple')
insert('Ball')
insert('Apple')
print(len(total))
```

a) 3

b) 1

c) 2

d) 0

Answer: c

66. What will be the output of the following Python code snippet?

```
a ={}
a[1]=1
a['1']=2
a[1]=a[1]+1
count =0

for i in a:
    count += a[i]
print(count)
```

a) 1

b) 2

c) 4

d) Error, the keys can’t be a mixture of letters and numbers

Answer: c

67. What will be the output of the following Python code snippet?

```
numbers ={}
letters ={}
comb ={}
numbers[1]=56
numbers[3]=7
letters[4]='B'
comb['Numbers']= numbers
comb['Letters']= letters
print(comb)
```

a) Error, dictionary in a dictionary can't exist

b) 'Numbers': {1: 56, 3: 7}

c) {'Numbers': {1: 56}, 'Letters': {4: 'B'}}

d) {'Numbers': {1: 56, 3: 7}, 'Letters': {4: 'B'}}

Answer: d

68. Which of these about a dictionary is false?

a) The values of a dictionary can be accessed using keys
b) The keys of a dictionary can be accessed using values
c) Dictionaries aren't ordered
d) Dictionaries are mutable
Answer: b

---

69. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
for i,j in a.items():
print(i,j,end=" ")
```

a) 1 A 2 B 3 C

b) 1 2 3

c) A B C

d) 1:"A" 2:"B" 3:"C"

Answer: a

70. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
print(a.get(1,4))
```

a) 1

b) A

c) 4

d) Invalid syntax for get method

Answer: b

71. What will be the output of the following code?

```
a={1:"A",2:"B",3:"C"}
print(a.get(5,4))
```

a) Error, invalid syntax
b) A
c) 5
d) 4

Answer: d

---

72. What will be the output of the following Python code?

```
a={1:”A”,2:”B”,3:”C”}
b=a.copy()
b[2]=”D”
print(a)
```

a) Error, copy() method doesn’t exist for dictionaries

b) {1: ‘A’, 2: ‘B’, 3: ‘C’}

c) {1: ‘A’, 2: ‘D’, 3: ‘C’}

d) “None” is printed

Answer: b

73. The character Dot (that is, ‘.’) in the default mode, matches any character other than _____

a) caret
b) ampersand
c) percentage symbol
d) newline

Answer: d

74. The expression a{5} will match _____ characters with the previous regular expression.
a) 5 or less
b) exactly 5
c) 5 or more
d) exactly 4

Answer: b

75. _____ matches the start of the string.
_____ matches the end of the string.

a) '^', '$'
b) '$', '^'
c) '$', '?'
d) '?', '^'

Answer: a

---

76. **What is the output of the following program?**

```
L1 = list()
L1.append([1, [2, 3], 4])
L1.extend([7, 8, 9])
print(L1[0][1][1] + L1[2])
```

a) Type Error: can only concatenate list (not "int") to list
b) 12
c) 11
d) 38

Ans. (c)

77. What is the output of the following program?

```
L1 = [1, 1.33, 'GFG', 0, 'NO', None, 'G', True]
val1, val2 = 0, ''
for x in L1:
if(type(x) == int or type(x) == float):
    val1 += x
elif(type(x) == str):
    val2 += x
else:
break
print(val1, val2)
```

a) 2 GFGNO
b) 2.33 GFGNOG
c) 2.33 GFGNONoneGTrue
d) 2.33 GFGNO
Ans. (d)

78. What is the output of the following program?

```
L = list('123456')
L[0] = L[5] = 0
L[3] = L[-2]
print(L)
```

a) [0, ‘2’, ‘3’, ‘4’, ‘5’, 0]
b) [‘6’, ‘2’, ‘3’, ‘5’, ‘5’, ‘6’]
c) [‘0’, ‘2’, ‘3’, ‘5’, ‘5’, ‘0’]
d) [0, ‘2’, ‘3’, ‘5’, ‘5’, 0]
Ans. (d)

79. What is the output of the following program?

```
T = tuple('jeeps')
a, b, c, d, e = T
b = c = '*'
T = (a, b, c, d, e)
print(T)
```

a) (‘j’, ‘*’, ‘*’, ‘p’, ‘s’)
b) (‘j’, ‘e’, ‘e’, ‘p’, ‘s’)
c) (‘jeeps’, ‘*’, ‘*’)
d) KeyError
Ans. (a)

80. What is the value of L at the end of execution of the following program?

```
L = [2e-04, 'a', False, 87]
T = (6.22, 'boy', True, 554)
fori in range(len(L)):
if L[i]:
    L[i] = L[i] + T[i]
else:
    T[i] = L[i] + T[i]
break
```

a) [6.222e-04, ‘aboy’, True, 641]
b) [6.2202, ‘aboy’, 1, 641]
c) [6.2202, ‘aboy’, True, 87]
d) [6.2202, ‘aboy’, False, 87]

Ans. (d)

---

1. What will be the output of the following Python code?

```
f = None
for i in range (5):
   with open("data.txt", "w") as f:
      if i > 2:
         break
print(f.closed)
```

A. True

B. False

C. None

D. Error

Answer: A

----

2. What Will Be The Output Of The Following Code Snippet?

```
fo = open("myfile.txt", "w+")
print ("Name of the file: ", fo.name)
seq="TechBeamers\nHello Viewers!!"
```

```
fo.writelines(seq )
fo.seek(0,0)
for line in fo:
   print (line)
fo.close()
```

A. TechBeamers

   Hello viewers!!

B. Name of the file: myfile.txt

   TechBeamers

   Hello Viewers!!

C. TechBeamers Hello viewers!!

D. Syntax Error

Answer: B

---

3. What Will Be The Output Of The Following Code Snippet?

```
fo = open("myfile.txt", "w+")
print ("Name of the file: ", fo.name)

txt = "This is 1st line,"
fo.writelines( txt )

seq = " This is 2nd line, This is 3rd line"
fo.seek(0, 2)
fo.writelines( seq )
```

```
fo.seek(0,0)

line = fo.readlines()

print ("Read Line: %s" % (line))


fo.close()
```

A. Name of the file: myfile.txt

Read Line: [‘This is 1st line, This is 2nd line, This is 3rd line’]

B. Name of the file: myfile.txt

Read Line: [‘ This is 2nd line, This is 3rd line’]

C. Read Line: [‘This is 1st line’]

D. Runtime Error

Answer. A

----

4. What Will Be The Output Of The Following Code Snippet?

```
with open("hello.txt", "w") as f:
   f.write("Hello World how are you today")


with open('hello.txt', 'r') as f:
   data = f.readlines()
   for line in data:
      words = line.split()
```

```
    print (words)
  f.close()
```

A. Runtime Error

B. Hello World how are you today

C. [‘Hello’, ‘World’, ‘how’, ‘are’, ‘you’, ‘today’]

D. Hello

Answer: C

----

5. What Will Be The Output Of The Following Code Snippet?

```
f = open("data.txt", "r")
txt = "This is 1st line\n"
f.writelines( txt )
f.seek(0,0)
line = f.readlines()
print ("Read Line: %s" % (line))
f.close()
```

A. [‘ This is 1st line\n’]

B. []

C. IO Error

D. None

Answer: C

----

6. What Will Be The Output Of The Following Code Snippet?

```
try:
  f = open("testfile", "r")
  f.write("This is the test file for exception handling!!")
except IOError:
  print ("Error: could not find a file or read data")
else:
  print ("content is written in the file successfully")
```

A. This is the test file for exception handling!!

B. Error: could not find a file or read data

C. content is written in the file successfully

D. IO Error

Answer: B

---

7. What Will Be The Output Of The Following Code Snippet?

```
colors = ['red\n', 'yellow\n', 'blue\n']
f = open('colors.txt', 'w')
f.writelines(colors)
f.close()
f.seek(0,0)
for line in f:
   print (line)
```

A. red

    yellow

blue

B. [‘red\n’, ‘yellow\n’, ‘blue\n’]

C. Error: I/O operation on closed file.

D. Compilation error

Answer: C

---

8. What gets printed?

```
import re
sum = 0
pattern = 'back'
if re.match(pattern, 'backup.txt'):
   sum += 1
if re.match(pattern, 'text.back'):
   sum += 2
if re.search(pattern, 'backup.txt'):
   sum += 4
if re.search(pattern, 'text.back'):
   sum += 8
print(sum)
```

A. 3

B. 7

C. 13

D. 14

Answer: C

---

9. What will be the output of the following Python code?

```
import re
sentence = 'we are humans'
matched = re.match(r'(.*) (.*?) (.*)', sentence)
print(matched.groups())
```

A. ('we', 'are', 'humans')

B. (we, are, humans)

C. ('we', 'humans')

D. 'we are humans'

Answer: A

---

10. What will be the output of the following Python code?

```
import re
sentence = 'we are humans'
matched = re.match(r'(.*) (.*?) (.*)', sentence)
print(matched.group())
```

A. ('we', 'are', 'humans')

B. (we, are, humans)

C. ('we', 'humans')

D. we are humans

Answer: D

---

11. What will be the output of the following Python code?

```
import re
sentence = 'we are humans'
matched = re.match(r'(.*) (.*?) (.*)', sentence)
print(matched.group(2))
```

A. are

B. 'we'

C. 'humans'

D. 'we are humans'

Answer: A

---

12. What will be the output of the following Python code?

```
import re
sentence = 'horses are fast'
regex = re.compile('(?P<animal>\w+) (?P<verb>\w+) (?P<adjective>\w+)')
matched = re.search(regex, sentence)
print(matched.groupdict())
```

A. {'animal': 'horses', 'verb': 'are', 'adjective': 'fast'}

B. ('horses', 'are', 'fast')

C. 'horses are fast'

D. 'are'

Answer: A

---

13. What will be the output of the following Python code?

```
import re
sentence = 'horses are fast'
regex = re.compile('(?P<animal>\w+) (?P<verb>\w+) (?P<adjective>\w+)')
matched = re.search(regex, sentence)
print(matched.groups())
```

A. {'animal': 'horses', 'verb': 'are', 'adjective': 'fast'}

B. ('horses', 'are', 'fast')

C. 'horses are fast'

D. 'are'

Answer: B

---

14. What will be the output of the following Python code?

```
import re
sentence = 'horses are fast'
regex = re.compile('(?P<animal>\w+) (?P<verb>\w+) (?P<adjective>\w+)')
matched = re.search(regex, sentence)
print(matched.group(2))
```

A. {'animal': 'horses', 'verb': 'are', 'adjective': 'fast'}

B. ('horses', 'are', 'fast')

C. 'horses are fast'

D. are

Answer: D

---

15. What is the output of the line of code shown below?

re.split('\W+', 'Hello, hello, hello.')

A. [‘Hello’, ‘hello’, 'hello.’]

B. [‘Hello, ‘hello’, ‘hello’]

C. [‘Hello’, ‘hello’, ‘hello’, ‘.’]

D. [‘Hello’, ‘hello’, ‘hello’, ”]

Answer: D

---

16. Which regular expression will match the string "JUL-28-87":

A. [a-z]+W[0-9]+W[0-9]+

B. ([a-z]+)W([0-9]+)W([0-9]+)

C. JUL-w-w

D. (.*?)-(\d+)-(\d+)

Answer: D

---

17. What will be the output of the following code?

string = "This is python test"

string[8:14] = "Java"

print (string)

A. This is java test

B. This is python test

C. 'str' object does not support item assignment

D. None of the above

Answer: C

---

18. What wll be the output of the following code?

print (r'This is a \n string')

A. This is a string

B. This is a

string

C. This is a \n string

D. None of the above

Answer: C

---

19. What will be printed from following code?

print ("""This is a

string""")

A. This is a

string

B. This is a string

C. This is a \nstring

D. Both B and C

Answer: A

---

20. What is the output of the following code?

```
string ="This is python"
for i in string:
        if i == "i":
                print (string.find("i"))
```

A. 2

   5

B. 2

   2

C. 5

   2

D. Both A and B

Answer: B

----

21. What is the output of the following code?

```
string = "ABCDEFG"
for i in string:
        print (chr(i), end = " ")
```

A. 65 66 67 68 69 70 71

B. Error

C. 97 98 99 100 101 102 103

D. None of the above

Answer: B

----

22. What will be the output of the following code?

```
string = "12345678"
for i in range(len(string)):
        string[i] = str(string[i])
print (string)
```

A. "1" "2" "3" "4" "5" "6" "7" "8"

B. 12345678

C. Error

D. "12345678"

Answer: C

---

23. What will be the output?

```
print ("(string" + " ") * "2")
```

A. Error

B. 'string string '

C. stringstring

D. string2 string2

Answer: A

---

24. What will be printed from the following code?

```
string = "PYTHON TEST"
print (string[-1:0:-1])
```

A. TSET NOHTY

B. No output

C. 'YTHON TEST'

D. Error

Answer: A

---

25. What will the output of the following code?

>>>"PYTHON TEST"[-11:-1:1]

A. 'TSET NOHTY'

B. 'PYTHON TES'

C. PYTHON TEST

D. No output

Answer: B

Q1:What Will Be The Output Of The Following Code Snippet?

```
class Vardhan:
    def __init__(self, id):
        id = 1000
        self.id = id
        print (id)

val = Vardhan(200)
```

A. SyntaxError, this program will not run
B. 1000
C. 200
D. None of the above

Correct : Option B

Q2: What Will Be The Output Of The Following?

```
s = "\t\tWelcome\n"
print(s.strip())
```

A. \t\tWelcome\n
B. Welcome\n
C. \t\tWELCOME
D. Welcome
Correct : Option D

Q3: What is the output of following code?

```
class Person:
    def __init__(self, id):
        self.id = id

sam = Person(100)

sam.__dict__['age'] = 49

print (sam.age + len(sam.__dict__))
```

A. 1
B. 2
C. 49
D. 51
Correct : Option D

Q4: What Will Be The Output Of The Following Code Snippet?

```
class A:
    def __init__(self):
        self.calcI(30)
        print("i from A is", self.i)

    def calcI(self, i):
        self.i = 2 * i;

class B(A):
    def __init__(self):
        super().__init__()

    def calcI(self, i):
        self.i = 3 * i;

b = B()
```

A. The __init__ method of only class B gets invoked.
B. The __init__ method of class A gets invoked and it displays “i from A is 0”.
C. The __init__ method of class A gets invoked and it displays “i from A is 60”.
D. The __init__ method of class A gets invoked and it displays “i from A is 90”.
Correct Option D

Q5:Which Of The Following Statements Can Be Used To Check, Whether An Object “Obj” Is An Instance Of Class A Or Not?
A. obj.isinstance(A)
B. A.isinstance(obj)
C. isinstance(obj, A)
D. isinstance(A, obj)
Correct Option C

Q6:What Relationship Is Suited For Course And Faculty?
A. association
B. composition
C. inheritance
D. None of the above
Correct A

Q7: What Will Be The Output Of The Following Code?

```
class Test:
    def __init__(self, s):
        self.s = s

    def print(self):
        print(self.s)

msg = Test()
msg.print()
```

A. The program has an error because class Test does not have a constructor.
B. The above code produces an error because the definition of print(s) does not include .
C. It executes successfully but prints nothing.
D. The program has an error because of the constructor call is made without an argument
Correct : Option D

Q8: What is the output of following code?

```
class Test:
    def __init__(self):
        self.x = 1
        self.__y = 1

    def getY(self):
        return self.__y

val= Test()
val.__y = 45
print(val.getY())
```

A. The program has an error because y is private and should not access it from outside the class.
B. The program has an error because you cannot name a variable using __y.
C. The code runs fine and prints 1.
D. The code executes successfully and prints 45.

Answer. C

Q-9. What Will Be The Output Of The Following Code Snippet?

```
def main():
    myCounter = Counter()
    num = 0

    for i in range(0, 100):
        increment(myCounter, num)

    print("myCounter.counter =", myCounter.counter, ", number of times =", num)

    def increment(c, num):
        c.counter += 1
        num += 1

class Counter:
    def __init__(self):
        self.counter = 0

main()
```

A. counter is 101 , number of times is 0
B. Error
C. counter is 100, number of times is 100
D. counter is 101, number of times is 101
Answer. B

Q-10. What Code Can We Put At The Third Line Of The Definition Of Class B To Invoke Its Superclass's Constructor and get output as: 1 2?

```
class A:
    def __init__(self, i = 1):
        self.i = i

class B(A):
    def __init__(self, j = 2):
        _________

        self.j = j

def main():
    b = B()
    print(b.i, b.j)

main()
```

A. super().__init__(self)
B. super().init()

C. A.__init__()
D. A.__init__(self)
Correct Option D

Q 11: What Will Be The Output Of The Following Code Snippet?

```
class A:
    def __init__(self, num):
        self.x = num

class B(A):
    def __init__(self, num):
        self.y = num

obj = B(11)
print ("%d %d" % (obj.x, obj.y))
```

A. AttributeError: ‘B’ object has no attribute ‘x’
B. None 11
C. 11 None
D. 11 11

Answer. A

Q 12:What Will Be The Output Of The Following Code Snippet?

```
class A:
    def __str__(self):
        return "A"

class B(A):
    def __str__(self):
        return "B"

class C(B):
    def __str__(self):
        return "C"

def main():
    b = B()
    a = A()
    c = C()
    print(c, b, a)

main()
```

A. A C B
B. A B C
C. C B A
D. B BB

Answer. C

Q 13: What Will Be The Output Of The Following Code Snippet?

```
class A:
   def __getInfo(self):
      return "A's getInfo is called"

   def printInfo(self):
      print(self.__getInfo(), end = ' ')

class B(A):
   def __getInfo(self):
      return "B's getInfo is called"

def main():
   A().printInfo()
   B().printInfo()

main()
```

A. A's getInfo is called A's getInfo is called
B. A's getInfo is called B's getInfo is called
C. B's getInfo is called A's getInfo is called
D. B's getInfo is called B's getInfo is called

Answer. A

Q 14: What is the output of below code

```
s='cppbuzzchicago'
print(s[3:5])
```

A. buzzc
B. pbuzz
C. bu
D. None of these

Correct C

Q15: What will be the output of 7^10 in python?

A. 13
B. 15
C. 2
D. None of these

Correct : A

Q16: What will be the output of the following Python code?

```
x = ['ab', 'cd']
for i in x:
   i.upper()
print(x)
```

a) [‘ab’, ‘cd’]

b) [‘AB’, ‘CD’]
c) [None, None]
d) none of the mentioned
Correct a

Q17:What will be the output of the following Python code?

```
i = 1
while true:
    if i%2 == 0:
        break
    print(i)
    i += 2
```

a) 1
b) 1 2
c) 1 2 3 4 5 6 …
d) Error
Correct d

Q18: What will be the output of the following Python code?

```
x = "abcdef"
while i in x:
    print(i, end=" ")
```

a) a b c d e f
b) abcdef
c) iiiiii …
d) error
Correct D
Q19: What will be the output of the following Python code?

```
x = "abcdef"
i = "a"
while i in x[:-1]:
    print(i, end = " ")
```

a) aaaaa
b) aaaaaa
c) aaaaaa …
d) a
Correct C

Q20: What will be the output of the following Python code?

```
class change:
    def __init__(self, x, y, z):
        self.a = x + y + z
```

```
x = change(1,2,3)
y = getattr(x, 'a')
setattr(x, 'a', y+1)
print(x.a)
```

a) 6
b) 7
c) Error
d) 0
Correct b

Q 21:What will be the output of the following Python code?

```
class test:
    def __init__(self,a):
        self.a=a

    def display(self):
        print(self.a)
obj=test()
obj.display()
```

a) Runs normally, doesn't display anything
b) Displays 0, which is the automatic default value
c) Error as one argument is required while creating the object
d) Error as display function requires additional argument
Correct C

Q22: What is Instantiation in terms of OOP terminology?
a) Deleting an instance of class
b) Modifying an instance of class
c) Copying an instance of class
d) Creating an instance of class
Correct: d

Q23:What will be the output of the following Python code?

```
class fruits:
    def __init__(self, price):
        self.price = price
obj=fruits(50)

obj.quantity=10
obj.bags=2
obj.material=10

print(obj.quantity+len(obj.__dict__))
```

a) 13
b) 52
c) 14

d) 60
Ans:C
Q24: What will be the output of the following Python code?

```
class Demo:
   def __init__(self):
      pass

def test(self):
   print(__name__)

obj = Demo()
obj.test()
```

a) Error
b) __main__
c) Demo
d) test

Answer: a

Q25: What will be the output of the following Python code?

```
x = (i for i in range(3))
for i in x:
   print(i)
for i in x:
   print(i)
```

a) 0
1
2
b) error
c) 0 1 2 0 1 2
d) none of the mentioned

Answer: a

1. Assume that there is a file 'somefile.txt' with the given contents.

Contents of somefile.txt:

This is first line.

This is second line.

This is third line.

What will be the output of the following code?

```
file = open("somefile.txt", "r")
content1 = file.read()
content2 = file.readline()
content3 = file.readlines()
print ("content1: ", content1)
print ("content2: ", content2)
print ("content3: ", content3)
```

A. content1: This is first line.

   This is second line.

   This is third line.

   content2: This is first line.

   content3: ['This is first line.\n', 'This is second line.\n', 'This is third line.\n']

B. content1: This is first line.

   This is second line.

   This is third line.

   content2:

   content3: []

C. content1: This is first line.

   This is second line.

   This is third line.

   content2: This is first line.

   content3: []

D. content1:

content2: This is first line.

content3: ['This is first line.\n', 'This is second line.\n', 'This is third line.\n']

Answer: B

---

2. What is the output of following line of code?

```
fileobj = open("somefile.txt", "r")
print (fileobj.tell(10))
```

A. returns the position of the 10th character in the file

B. places the cursor at 10th character in the file

C. Error

D. No output

Answer: C

---

3. What is the output of following line of code?

```
fileobj = open("somefile.txt", "a")  # assume there is a file somefile.txt with contents
print (fileobj.tell())
```

A. returns the position of the last character in the file

B. returns the position of the end of file

C. Error

D. No output

Answer: B

---

4. What will be the output of the following Python code?

```
print("Hello {name1} and {name2}".format(name1='foo', name2='bin'))
```

A. Hello foo and bin

B. Hello {name1} and {name2}

C Error

D. Hello and

Answer: A

---

5. What will be the output of the following Python code?

print("Hello {2} and {1}".format('bin', 'bar', 'foo'))

A. Hello foo and bar

B. Hello bin and foo

C Error

D. Hello bar and foo

Answer: A

---

6. What will be the output of the following Python code?

print("Hello {0!r} and {1!s}".format('foo', 'bin'))

A. Hello foo and foo

B. Hello 'foo' and bin

C. Hello foo and ‘bin’

D. Error

Answer: B

---

7. What will be the output of the following Python code snippet?

print('The sum of {1} and {0} is {2}'.format(2, 10, 12))

A. The sum of 10 and 2 is 12

B. Error

C. The sum of 0 and 1 is 2

D. None of the mentioned

Answer: A

---

8. What will be the output of the following Python code?

print("abcdef".find("cd") == "cd" in "abcdef")

A. True

B. False

C. Error

D. None of the mentioned

Answer: B

---

9. What will be the output of the following Python code?

print("abcdef".find("cd") == "abcdef".rfind("cd"))

A. True

B. False

C. Error

D. None of the mentioned

Answer: A

---

10. Which of the following lines of code will not show a match (assume that 'import re' is used)?

A. >>> re.match(‘ab*’, ‘a’)

B. >>> re.match(‘ab*’, ‘ab’)

C. >>> re.match(‘ab*’, ‘abb’)

D. >>> re.match(‘ab*’, ‘ba’)

Answer: D

---

11. What is the output of the following code?

```
import re

m = re.search('a', 'The blue umbrella')

print (m.re.pattern)
```

A. {}

B. ‘The blue umbrella’

C. a

D. No output

Answer: C

---

12. What is the difference between 'r+' and 'a' modes?

A. no difference

B. in 'r+' the pointer is initially placed at the beginning of the file and the pointer is at the end for 'a'

C. in 'w+' the pointer is initially placed at the beginning of the file and the pointer is at the end for 'r+'

D. depends on the operating system

Answer: B

---

13. How do you change the file position to an offset value from the start?

A. fp.seek(offset, 0)

B. fp.seek(offset, 1)

C. fp.seek(offset, 2)

D. none of the mentioned

Answer: A

---

14. What happens if no arguments are passed to the file handling 'seek' function?

A. file position is set to the start of file

B. file position is set to the end of file

C. file position remains unchanged

D. error

Answer: D

---

15. Which function of file handling is used to read all the characters of a file?

A. read()

B. readcharacters()

C. readall()

D. readchar()

Answer: A

---

16. Which file handling function is used to write all the characters to a file?

A. write()

B. writecharacters()

C. writeall()

D. writechar()

Answer: A

---

17. Which file handling function is used to write a list of strings to a file?

A. writeline()

B. writelines()

C. writestatement()

D. writefullline()

Answer: B

---

18. What will be the output of the following Python code?

```
fo = open("foo.txt", "r+")
print ("Name of the file: ", fo.name)

# Assuming file has following 5 lines
# This is 1st line
# This is 2nd line
# This is 3rd line
# This is 4th line
# This is 5th line

for index in range(5):
   line = fo.readline()
   print ("Line No %d - %s" % (index, line))

# Close opened file
fo.close()
```

A. Compilation Error

B. Syntax Error

C. Displays Output

D. None of the mentioned

Answer: C

---

19. What will be the output of the following Python code snippet?

print('abcdefcdghcd'.split('cd', 2))

A. [‘ab’, ‘ef’, ‘ghcd’]

B. [‘ab’, ‘efcdghcd’]

C. [‘abcdef’, ‘ghcd’]

D. none of the mentioned

Answer: A

---

20. What will be the output of the following line?

print('ab\ncd\nef'.splitlines())

A. ['ab', 'cd', 'ef']

B. ['ab\n', 'cd\n', 'ef\n']

C. ['ab\n', 'cd\n', 'ef']

D. ['ab', 'cd', 'ef\n']

Answer: A

---

21. What will be the output of the following Python code snippet?

print('Ab!2'.swapcase())

A. AB!@

B. ab12

C. aB!2

D. aB1@

Answer: C

---

22. What will be the output of the following Python code snippet?

print('ab cd ef'.title())

A. Ab cd ef

B. Ab cd eF

C. Ab Cd Ef

D. None of the mentioned

Answer: C

---

23. What will be the output of the following Python code snippet?

print('ab cd-ef'.title())

A. Ab cd-ef

B. Ab Cd-ef

C. Ab Cd-Ef

D. None of the mentioned

Answer: C

---

24. What will be the output of the following Python code snippet?

print ('xyyxyyxyxyxxy'.replace('xy', '12', 0))

A. xyyxyyxyxyxxy

B. 12y12y1212x12

C. 12yxyyxyxyxxy

D. xyyxyyxyxyx12

Answer: A

---

25. What will be the output of the following Python code snippet?

print('xyyxyyxyxyxxy'.replace('xy', '12', 100))

A. xyyxyyxyxyxxy

B. 12y12y1212x12

C. none of the mentioned

D. error

Answer: B

---

1. What will be the output of the following Python code?

```
def mk(x):
    def mk1():
        print("Decorated")
        x()
    return mk1
def mk2():
    print("Ordinary")
p = mk(mk2)
p()
```

a)

Decorated

Decorated

b)

Ordinary

Ordinary

c)

Ordinary

Decorated

d)

Decorated

Ordinary

Answer: d

2. What will be the output of the following Python code?

```
def ordi():
        print("Ordinary")
ordi
ordi()
```

a)Ordinary
b)Error
Answer a)

3. What will be the output of the following Python code?

```
def f(p, q):
        return p%q
print(f(0, 2))
print(f(2, 0))
```

a)

0

0

b)

Zero Division Error

Zero Division Error

c)
   0
   Zero Division Error
d)
   Zero Division Error
   0
Answer c)

4. What will be the output of the following Python code?

```
def f(x):
   def f1(*args, **kwargs):
        print("Hello")
        return x(*args, **kwargs)
   return f1
f1()
```

a) 2
b) 1
c) Error
d) 0

Answer: c
5. What will be the output of the following Python code?

```
def f(x):
   def f1(*args, **kwargs):
      print("*", 5)
      x(*args, **kwargs)
      print("*", 5)
   return f1
@f
def p(m):
   p(m)
print("hello")
```

a)
   *****
   hello
b)
   *****
   *****
   hello
c) *****
d) hello

Answer d

6. What will be the output of the following Python code?

```
class A:
   @staticmethod
   def a(x):
      print(x)
A.a(100)
```

a) Error
b) Warning
c) 100
d) No output

Answer: c

7. What will be the output of the following Python code?

```
>>> l=list('HELLO')
>>> 'first={0[0]}, third={0[2]}'.format(l)
```

a) ‘first=H, third=L’
b) ‘first=0, third=2’
c) Error
d) ‘first=0, third=L’

Answer: a

8. What will be the output of the following Python code?

```
>>> l=list('HELLO')
>>> p=l[0], l[-1], l[1:3]
>>> 'a={0}, b={1}, c={2}'.format(*p)
```

a) Error
b) “a=’H’, b=’O’, c=(E, L)”
c) “a=H, b=O, c=[‘E’, ‘L’]”
d) Junk value

Answer: c

9. What will be the output of the following Python code?

```
>>> hex(255), int('FF', 16), 0xFF
```

a) [0xFF, 255, 16, 255]
b) (‘0xff’, 155, 16, 255)
c) Error

d) (‘0xff’, 255, 255)

Answer: d

10. The output of the two codes shown below is the same.
>>> bin((2**16)-1)
>>> '{}'.format(bin((2**16)-1))
a) True
b) False

Answer: a
11. What will be the output of the following Python code?
>>> '{a}{b}{a}'.format(a='hello', b='world')
a) ‘hello world’
b) ‘hello’ ‘world’ ‘hello’
c) ‘helloworldhello’
d) ‘hello’ ‘hello’ ‘world’

Answer: c
12. What will be the output of the following Python code?
>>> D=dict(p='hello',q='world')
>>> '{p}{q}'.format(**D)
a) Error
b) 'helloworld'
c) 'hello world'
d) {‘hello’, ‘world’}

Answer: b
13. What will be the output of the following Python code?
>>>'The {} side {1} {2}'.format('bright', 'of', 'life')
a) Error
b) ‘The bright side of life’
c) ‘The {bright} side {of} {life}’
d) No output

Answer: a
14. What will be the output of the following Python code?
>>>'%.2f%s' % (1.2345, 99)
a) ‘1.2345’, ‘99’
b) ‘1.2399’
c) ‘1.234599’
d) 1.23, 99

Answer: b
15. What will be the output of the following Python code?
>>>'%s' %((1.23,),)
a) ‘(1.23,)’
b) 1.23,
c) (,1.23)
d) ‘1.23’

Answer: a

16. What will be the output of the following two codes?
i. >>> '{0}'.format(4.56)
ii. >>> '{0}'.format([4.56,])
a) ‘4.56’, ‘4.56,’
b) ‘4.56’, ‘[4.56]’
c) 4.56, [4.56,]
d) 4.56, [4.56,]
Answer: b
17. What will be the output of the following Python code snippet?
>>>'%d %s %g you' %(1, 'hello', 4.0)
a) Error
b) 1 hello you 4.0
c) '1 hello 4 you'
d) 1 4 hello you

Answer: c

18. The output of which of the codes shown below will be: ‘There are 4 blue birds.’?
a)>>> ‘There are %g %d birds.’ %4 %blue
b) >>>‘There are %d %s birds.’ %(4, ‘blue’)
c) >>>‘There are %s %d birds.’ %[4, blue]
d) >>>‘There are %d %s birds.’ 4, blue
Answer: b

19. What will be the output of the following Python code snippet?
>>>x=3.3456789
>>>'%s' %x, str(x)
a) Error
b) (‘3.3456789’, ‘3.3456789’)
c) (3.3456789, 3.3456789)
d) (‘3.3456789’, 3.3456789)

Answer: b

20. What will be the output of the following Python code?
```
>>>s='{0}, {1}, and {2}'
>>>s.format('hello', 'good', 'morning')
```
a) ‘hello good and morning’
b) ‘hello, good, morning’
c) ‘hello, good, and morning’
d) Error

Answer: c
Q21. What will be the output of the following Python code?
```
print(()or[]or{}or'')
```
a)()
b)[]
c){}
d)None of the above
Ans d
Q22. What will be the output of the following Python code?
```
print(['f', 't']or[bool('spam')])
```

a) ['f', 't']
b)spam
c)’spam’
d)None of the above
Ans a

Q23. What will be the output of the following Python code?
```
l1=[1,2,3,4,5,6]
l2=[7]
for x,y in zip(l1,l2):
   print(x,y)
```
a)1
b) 1 7
c)[1,7]
d)[1]
Ans b

Q24. What will be the output of the following Python code?
```
class student:
   pass
o=student()
o.age=25
print(o.age)
```
a) 25

b)Not a valid attribute
c)()
d)None o the above
Ans a

Q25. What will be the output of the following Python code?

```
class emp:
   def __init__(self):
      name="tom"
      print(name)
ob=emp()
```

a)Invalid attribute
b)tom
c)()
d)None
Ans b

46. What will be the output of the following Python code?

```
print("Hello {name1} and {name2}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {name1} and {name2}
c) Error
d) Hello and

Answer: c

47. What will be the output of the following Python code?

```
print("Hello {} and {}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {} and {}
c) Error
d) Hello and
Answer: a

48. What will be the output of the following Python code?

```
>>>str1="helloworld"

>>>str1[::-1]
```

a) dlrowolleh
b) hello
c) world
d) helloworld
Answer: a

49. What will be the output of the following Python statement?

```
>>>chr(ord('A'))
```

a) A
b) B
c) a
d) Error
Answer: a

50. Which of the following is a Python tuple?
a) [1, 2, 3]
b) (1, 2, 3)
c) {1, 2, 3}
d) {}
Answer: b

51. Suppose t = (1, 2, 4, 3), which of the following is incorrect?
a) print(t[3])
b) t[3] = 45
c) print(max(t))
d) print(len(t))
Answer: b

52. What will be the output of the following Python code?

```
>>>t=(1,2,4,3)

>>>t[1:3]
```

a) (1, 2)
b) (1, 2, 4)
c) (2, 4)
d) (2, 4, 3)
Answer: c

53. What will be the output of the following Python code?

```
>>>t1 = (1, 2, 4, 3)

>>>t2 = (1, 2, 3, 4)

>>>t1 < t2
```

a) True
b) False
c) Error
d) None
Answer: b

54. What will be the output of the following Python code?

```
>>>t = (1, 2)

>>>2 * t
```

a) (1, 2, 1, 2)
b) [1, 2, 1, 2]
c) (1, 1, 2, 2)
d) [1, 1, 2, 2]
Answer: a

55. What will be the output of the following Python code?

```
a=1,2,3,4
print(a)
```

a) (1, 2, 3, 4)

b) 1
c) 4
d) 1,2,3,4
Answer: a

56. What will be the output of the following Python code?

```
>>> a=(1,2)
>>> b=(3,4)
```

```
>>> c=a+b
>>> c
```
a) (4,6)
b) (1,2,3,4)
c) Error as tuples are immutable
d) None
Answer: b

57. What will be the output of the following Python code?

```
>>> a=(2,3,1,5)
>>> a.sort()
>>> a
```
a) (1,2,3,5)
b) (2,3,1,5)
c) None
d) Error, tuple has no attribute sort
Answer: d

58. What will be the output of the following Python code?

```
s1={3, 4}
s2={1, 2}
s3=set()
i=0
j=0
for i in s1:
   for j in s2:
      s3.add((i,j))
      i+=1
      j+=1
print(s3)
```
a) {(3, 4), (1, 2)}
b) Error
c) {(4, 2), (3, 1), (4, 1), (5, 2)}
d) {(3, 1), (4, 2)}

Answer: c

59. The _____ function removes the first element of a set and the last element of a list.
a) remove
b) pop
c) discard
d) dispose

Answer: b

60. What will be the output of the following Python code?

```
s=set([1, 2, 3])
s.union([4, 5])
print(s)
```

a){1, 2, 3}
b)[1,2,3]
c){1,2,3,4,5}
d)[1,2,3,4,5]
Ans: a

31. Which of the following commands will create a list?
a) list1 = list()
b) list1 = []
c)list1=[1,2,3,4]
d) all of the mentioned
Answer: d

32.
```
numbers = [1, 2, 3, 4]

numbers.append([5,6,7,8])

print(len(numbers))
```
a) 4
b) 5
c) 8
d) 12

Answer: b

33.
```
>>> numbers = [1, 2, 3, 4]

>>> numbers.extend([5,6,7,8])

>>> len(numbers)
```

a) 4
b) 5
c) 8
d) 12

Answer: c

34. what is the output of following code?

```
list1=[10,10,10,10]

for x in list1:

    list1.remove(x)

print(list1)
```

a) [ ]
b) [10,10,10,10]
c) [10,10]
d) Error

Answer: c

35. What will be the output of the following Python code?

```
veggies = ['carrot', 'broccoli', 'potato', 'asparagus']

veggies.insert(veggies.index('broccoli'), 'celery')

print(veggies)
```

a) [‘carrot’, ‘celery’, ‘broccoli’, ‘potato’, ‘asparagus’] Correct 1.00
b) [‘carrot’, ‘celery’, ‘potato’, ‘asparagus’]

c) [‘carrot’, ‘broccoli’, ‘celery’, ‘potato’, ‘asparagus’]

d) [‘celery’, ‘carrot’, ‘broccoli’, ‘potato’, ‘asparagus’]
Answer: a

36. What will be the output of the following Python code?

```
m = [[x, x + 1, x + 2] for x in range(0, 3)]

print(m)
```

a) [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
b) [[0, 1, 2], [1, 2, 3], [2, 3, 4]]
c) [1, 2, 3, 4, 5, 6, 7, 8, 9]
d) [0, 1, 2, 1, 2, 3, 2, 3, 4]
Answer: b

37. What will be the output of the following Python code snippet?

```
print('ab\ncd\nef'.splitlines())
```

a) [‘ab’, ‘cd’, ‘ef’]
b) [‘ab\n’, ‘cd\n’, ‘ef\n’]
c) [‘ab\n’, ‘cd\n’, ‘ef’]
d) [‘ab’, ‘cd’, ‘ef\n’]
Answer: a

38. What will be the output of the following Python code snippet?

```
print('Ab!2'.swapcase())
```

a) AB!@
b) ab12
c) aB!2
d) Error
Answer: c

39. What will be the output of the following Python code snippet?

```
print('ab cd-ef'.title())
```

a) Ab cd-ef
b) Ab Cd-ef
c) Ab Cd-Ef
d) None of the mentioned
Answer: c

40. What will be the output of the following Python code snippet?

```
print('abcdef12'.replace('cd', '12'))
```

a) ab12ef12
b) abcdef12
c) ab12efcd
d) none of the mentioned

Answer: a

41. What will be the output of the following Python code snippet?

```
print('abef'.replace('cd', '12'))
```

a) abef
b) 12
c) error

d) none of the mentioned
Answer: a

42.What will be the output of the following Python code snippet?

```
print('xyyxyyxyxyxxy'.replace('xy', '12', 0))
```

a) xyyxyyxyxyxxy
b) 12y12y1212x12
c) 12yxyyxyxyxxy
d) xyyxyyxyxyx12

Answer: a

43. What will be the output of the following Python code?

```
print('ab12'.isalnum())
```

a) True
b) False
c) None
d) Error
Answer: a

44. What will be the output of the following Python code?

```
print('ab,12'.isalnum())
```

a) True
b) False
c) None
d) Error
Answer: b

45. What will be the output of the following Python code?

```
print("Hello {0} and {1}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {0} and {1} foo bin
c) Error
d) Hello 0 and 1
Answer: a

61. What will be the output of the following Python code?

```
count={}
count[(1,2,4)] = 5
count[(4,2,1)] = 7
count[(1,2)] = 6
count[(4,2,1)] = 2

tot = 0

for i in count:
    tot=tot+count[i]

print(len(count)+tot)
```

a) 25
b) 17
c) 16
d) Tuples can’t be made keys of a dictionary

Answer: c

62. What is the output of the following code?

```
a={}
a[2]=1
a[1]=[2,3,4]
print(a[1][1])
```

e) [2,3,4]
f) 3
g) 2
h) An exception is thrown

Answer: b

63. What will be the output of the following Python code?

```
a={i: i*i for i in range(6)}
print (a)
```

e) Dictionary comprehension doesn’t exist
f) {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6:36}
g) {0: 0, 1: 1, 4: 4, 9: 9, 16: 16, 25: 25}
h) {0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

Answer: d

64. Which of the statements about dictionary values if false?

a) More than one key can have the same value
b) The values of the dictionary can be accessed as dict[key]
c) Values of a dictionary must be unique
d) Values of a dictionary can be a mixture of letters and numbers

Answer: c

---

65. What will be the output of the following Python code snippet?

```
total={}
def insert(items):
if items in total:
    total[items] +=1
else:
    total[items]=1

insert('Apple')
insert('Ball')
insert('Apple')
print(len(total))
```

a) 3
b) 1
c) 2
d) 0

Answer: c

66. What will be the output of the following Python code snippet?

```
a ={}
a[1]=1
a['1']=2
a[1]=a[1]+1
count =0

for i in a:
    count += a[i]
print(count)
```

a) 1

b) 2

c) 4

d) Error, the keys can’t be a mixture of letters and numbers

Answer: c

67. What will be the output of the following Python code snippet?

```
numbers ={}
letters ={}
comb ={}
numbers[1]=56
numbers[3]=7
letters[4]='B'
comb['Numbers']= numbers
comb['Letters']= letters
print(comb)
```

a) Error, dictionary in a dictionary can’t exist

b) ‘Numbers’: {1: 56, 3: 7}

c) {‘Numbers’: {1: 56}, ‘Letters’: {4: ‘B’}}

d) {‘Numbers’: {1: 56, 3: 7}, ‘Letters’: {4: ‘B’}}

Answer: d

68. Which of these about a dictionary is false?

a) The values of a dictionary can be accessed using keys
b) The keys of a dictionary can be accessed using values
c) Dictionaries aren’t ordered
d) Dictionaries are mutable
Answer: b

69. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
for i,j in a.items():
print(i,j,end=" ")
```

a) 1 A 2 B 3 C

b) 1 2 3

c) A B C

d) 1:”A” 2:”B” 3:”C”

Answer: a

70. What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
print(a.get(1,4))
```

a) 1

b) A

c) 4

d) Invalid syntax for get method

Answer: b

71. What will be the output of the following code?

```
a={1:"A",2:"B",3:"C"}
print(a.get(5,4))
```

a) Error, invalid syntax
b) A
c) 5
d) 4

Answer: d

---

72. What will be the output of the following Python code?

```
a={1:”A”,2:”B”,3:”C”}
b=a.copy()
```

```
b[2]="D"
print(a)
```

e) Error, copy() method doesn't exist for dictionaries
f) {1: 'A', 2: 'B', 3: 'C'}
g) {1: 'A', 2: 'D', 3: 'C'}
h) "None" is printed

Answer: b

73. The character Dot (that is, '.') in the default mode, matches any character other than _____

a) caret
b) ampersand
c) percentage symbol
d) newline

Answer: d

74. The expression a{5} will match _____ characters with the previous regular expression.
a) 5 or less
b) exactly 5
c) 5 or more
d) exactly 4

Answer: b

75. _____ matches the start of the string.
_____ matches the end of the string.

a) '^', '$'
b) '$', '^'
c) '$', '?'
d) '?', '^'

Answer: a

---

76. What will be the output of the following Python function?

```
re.findall("hello world", "hello", 1)
```

a) [“hello”]

b) [ ]

c) hello

d) hello world

Answer: b

77. Which of the following functions results in case insensitive matching?

a) re.A
b) re.U
c) re.I
d) re.X

Answer: c

---

78. Choose the function whose output can be: <_sre.SRE_Match object; span=(4, 8), match=’aaaa’>

a) re.search(‘aaaa’, “alohaaaa”, 0)
b) re.match(‘aaaa’, “alohaaaa”, 0)
c) re.match(‘aaa’, “alohaaa”, 0)
d) re.search(‘aaa’, “alohaaa”, 0)

Answer: a

---

79. What will be the output of the following Python code?

```
x = 50
def func(x):
   x = 2

func(x)
print('x is now', x)
```

a) x is now 50

b) x is now 2

c) x is now 100

d) None of the mentioned

Answer: a

---

80. What will be the output of the following Python code?

```
x = 50
def func():
    global x
    print('x is', x)
    x = 2
    print('Changed global x to', x)
func()
print('Value of x is', x)
```

a)
x is 50
Changed global x to 2
Value of x is 50

b)
x is 50
Changed global x to 2
Value of x is 2

c)
x is 50
Changed global x to 50
Value of x is 50

d) None of the mentioned

Answer: b

---

81. What will be the output of the following Python code?

```
def a(b):
    b = b + [5]
```

```
c = [1, 2, 3, 4]
a(c)
print(len(c))
```

a) 4

b) 5

c) 1

d) An exception is thrown

Answer: a

---

82. What will be the output of the following Python code?

```
a=10
b=20
def change():
    global b
    a=45
    b=56
change()
print(a)
print(b)
```

a)
10
56

b)
45
56

c)
10
20

d) Syntax Error

Answer: a

83. How do you get the name of a file from a file object (fp)?

a) fp.name
b) fp.file(name)
c) self.__name__(fp)
d) fp.__name__()

Answer: a

84. How do you rename a file?

a) fp.name = ‘new_name.txt’
b) os.rename(existing_name, new_name)
c) os.rename(fp, new_name)
d) os.set_name(existing_name, new_name)

Answer: b

85. Which function is used to read single line from file?

a) Readline()
b) Readlines()
c) Readstatement()
d) Readfullline()

Answer: a

86. Which function is used to write a list of string in a file?

a) writeline()
b) writelines()
c) writestatement()
d) writefullline()

Answer: b

---

87. What will be the output of the following Python code? (If entered name is psit)

```
import sys
print 'Enter your name: ',
name = ''
```

```
while True:
   c = sys.stdin.read(1)
   if c == '\n':
      break
   name = name + c

print 'Your name is:', name
```

a) psit
b) psit, psit
c) psi
d) None of the mentioned

Answer: a

88. Correct syntax of file.writelines() is?

a) file.writelines(sequence)

b) fileObject.writelines()

c) fileObject.writelines(sequence)

d) none of the mentioned

Answer: a

89. What will be the output of the following Python code?

```
elements = [0, 1, 2]
def incr(x):
   return x+1
print(list(map(elements, incr)))
```

a) [1, 2, 3]

b) [0, 1, 2]

c) error

d) none of the mentioned

Answer: c

90. What will be the output of the following Python code?

```
x = [12.1, 34.0]
print(len(' '.join(list(map(str, x)))))
```

a) 6
b) 8
c) 9
d) error

Answer: c

Q1 What is the output of following code?

```
def fun(name,age):
    print(name)
    print(age)
fun(25,"tom")
```

a)25
tom

b)25
'tom'

c) tom
25

d)tom
'25'

Answer a

Q2. What is the output of following code?

```
def fun(name,age):
    print("name is ",name)
    print("age is ",age)
fun(age=25,name="jack")
```

a) name is jack

age is 25

b) name is 25

age is ‘jack’

c)Error

d)None of the above

Answer a

Q3. What is the output of following code?

```
def fun(name,age):
    print("name is ",name)
    print("age is ",age)
fun(25,"Harry")
```

a) name is 25

age is Harry

b) Error

c)name is Harry

age is 25

d) None of the above

Answer a

Q4.What is the output of following code?

```
def f1(list1):
    list1[0]=100
list2=[1,2,3]
f1(list2)
print("list1 is ",list1)
```

a)list1 is [100,2,3]

b)Error

c)list1 is [1,2,3]

d)None of the above

Answer b

Q5.What is the output of following code?

```
def f2(list1):
    list1[0]=500
    print("list1 is ",list1)
list2=[1,2,3]
f2(list2)
print("list2 is ",list2)
```

a) list1 is [500, 2, 3]

   list2 is [500, 2, 3]

b)Error

c) list1 is [500, 2, 3]

   list2 is [1, 2, 3]

d)None of the above

Answer a

Q6. What is the output of following code?

```
def f3(list1):
    list1[0]=500
    print("list1 is ",list1)
list2=[1,2,3]
f3(list2[:])
print("list2 is ",list2)
```

a) list1 is [500, 2, 3]

list2 is [1, 2, 3]

b)Error

c) list1 is [500, 2, 3]

list2 is [500, 2, 3]

d)None of the above

Answer a

Q7. What is the output of following code?

```
def function1(*x):
   print(x)
function1()
```

a)Error

b)*

c)()

d)None of the above

Answer c

Q8. In following code, k is _____.

```
def function2(*k):
   print(type(k))
function2()
```

a)tuple

b)dictionary

c)string

d)list

Answer a

Q9. In following code, x is _____.

```
def function2(**x):
```

```
    print(type(x))
```

function2()

a)tuple

b)dictionary

c)string

d)list

Answer b

Q10. What is the output of following code?

```
y = 8

z = lambda x : x * y

print (z(6,6) )
```

a)36

b)48

c)Error

d)None of the above

Answer c

1. Which of the following commands will create a list?
a) list1 = list()
b) list1 = []
c)list1=[1,2,3,4]
d) all of the mentioned
Answer: d

2. What is the output when we execute list(“hello”)?
a) [‘h’, ‘e’, ‘l’, ‘l’, ‘o’]
b) [‘hello’]
c) [‘llo’]
d) [‘olleh’]

Answer: a

3. Suppose listExample is ['h','e','l','l','o'], what is len(listExample)?

a) 5

b) 4

c) None

d) Error

Answer: a

4. Suppose list1 is [2445,133,12454,123], what is max(list1)?

a) 2445

b) 133

c) 12454

d) 123

Answer: c

5. Suppose list1 is [3, 5, 25, 1, 3], what is min(list1)?

a) 3

b) 5

c) 25

d) 1

Answer: d

6. Suppose list1 is [1, 5, 9], what is sum(list1)?

a) 1

b) 9

c) 15

d) Error

Answer: c

7. Suppose list1 is [4, 2, 2, 4, 5, 2, 1, 0], Which of the following is correct syntax for slicing operation?

a) print(list1[0])

b) print(list1[:2])

c) print(list1[:-2])

d) all of the mentioned

Answer: d

8.Suppose list1 is [2, 33, 222, 14, 25], What is list1[-1]?

a) Error

b) None

c) 25

d) 2

Answer: c

10. Suppose list1 is [2, 33, 222, 14, 25], What is list1[:-1]?

a) [2, 33, 222, 14]

b) Error

c) 25

d) [25, 14, 222, 33, 2]

Answer: a

11. >>> names = ['Amir', 'Bear', 'Charlton', 'Daman']

>>> names[-1][-1]

a) A

b) Daman

c) Error

d) n

View Answer

Answer: d

12. To add a new element to a list we use which command?

a) list1.add(5)

b) list1.append(5)

c) list1.addLast(5)

d) list1.addEnd(5)

Answer: b

13. Suppose list1 is [3, 4, 5, 20, 5], what is list1.index(5)?

a) 0

b) 1

c) 4

d) 2

Answer: d

14. Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1.count(5)?

a) 0

b) 4

c) 1

d) 2

Answer: d

15. names1 = ['Amir', 'Bala', 'Chales']

```
    if 'amir' in names1:
            print(1)
    else:
            print(2)
```

a) None
b) 1
c) 2
d) Error

Answer: c

16. numbers = [1, 2, 3, 4]

```
    numbers.append([5,6,7,8])

    print(len(numbers))
```

a) 4
b) 5
c) 8
d) 12

Answer: b

17. >>> numbers = [1, 2, 3, 4]

>>> numbers.extend([5,6,7,8])

>>> len(numbers)

a) 4
b) 5
c) 8
d) 12

Answer: c

18. what is the output of following code?

```
 list1=[10,10,10,10]
```

```
for x in list1:
    list1.remove(x)
print(list1)
```

a) [ ]
b) [10,10,10,10]
c) [10,10]
d) Error

Answer: c

19. What will be the output of the following Python code?

```
veggies = ['carrot', 'broccoli', 'potato', 'asparagus']
veggies.insert(veggies.index('broccoli'), 'celery')
print(veggies)
```

a) [‘carrot’, ‘celery’, ‘broccoli’, ‘potato’, ‘asparagus’] Correct 1.00
b) [‘carrot’, ‘celery’, ‘potato’, ‘asparagus’]

c) [‘carrot’, ‘broccoli’, ‘celery’, ‘potato’, ‘asparagus’]

d) [‘celery’, ‘carrot’, ‘broccoli’, ‘potato’, ‘asparagus’]
Answer: a

20. What will be the output of the following Python code?

```
m = [[x, x + 1, x + 2] for x in range(0, 3)]
print(m)
```

a) [[1, 2, 3], [4, 5, 6], [7, 8, 9]]
b) [[0, 1, 2], [1, 2, 3], [2, 3, 4]]
c) [1, 2, 3, 4, 5, 6, 7, 8, 9]
d) [0, 1, 2, 1, 2, 3, 2, 3, 4]
Answer: b

21. What will be the output of the following Python code snippet?

print('ab**\n**cd**\n**ef'.splitlines())

a) [‘ab’, ‘cd’, ‘ef’]
b) [‘ab\n’, ‘cd\n’, ‘ef\n’]
c) [‘ab\n’, ‘cd\n’, ‘ef’]
d) [‘ab’, ‘cd’, ‘ef\n’]
Answer: a

22. What will be the output of the following Python code snippet?

print('Ab!2'.swapcase())

a) AB!@
b) ab12
c) aB!2
d) Error
Answer: c

23. What will be the output of the following Python code snippet?

print('ab cd-ef'.title())

a) Ab cd-ef
b) Ab Cd-ef
c) Ab Cd-Ef
d) None of the mentioned
Answer: c

24. What will be the output of the following Python code snippet?

print('abcdef12'.replace('cd', '12'))

a) ab12ef12
b) abcdef12
c) ab12efcd
d) none of the mentioned

Answer: a

25. What will be the output of the following Python code snippet?

```
print('abef'.replace('cd', '12'))
```

a) abef
b) 12
c) error
d) none of the mentioned
Answer: a

26.What will be the output of the following Python code snippet?

```
print('xyyxyyxyxyxxy'.replace('xy', '12', 0))
```

a) xyyxyyxyxyxxy
b) 12y12y1212x12
c) 12yxyyxyxyxxy
d) xyyxyyxyxyx12

Answer: a

27. What will be the output of the following Python code?

```
print('Hello!2@#World'.istitle())
```

a) True
b) False
c) None
d) error
Answer: a

28. What will be the output of the following Python code snippet?

```
print('abc'.islower())
```

a) True
b) False
c) None
d) Error
Answer: a

29. What will be the output of the following Python code?

print('ab12'.isalnum())

a) True
b) False
c) None
d) Error
Answer: a

30. What will be the output of the following Python code?

print('ab,12'.isalnum())

a) True
b) False
c) None
d) Error
Answer: b

31. What will be the output of the following Python code?

print("ccdcddcd".find("c"))

a) 4
b) 0
c) Error
d) True
Answer: b

32. What will be the output of the following Python code?

print("Hello {0} and {1}".format('foo', 'bin'))

a) Hello foo and bin
b) Hello {0} and {1} foo bin
c) Error
d) Hello 0 and 1
Answer: a

33. What will be the output of the following Python code?

```
print("Hello {name1} and {name2}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {name1} and {name2}
c) Error
d) Hello and

Answer: c

34. What will be the output of the following Python code?

```
print("Hello {} and {}".format('foo', 'bin'))
```

a) Hello foo and bin
b) Hello {} and {}
c) Error
d) Hello and
Answer: a

35. What will be the output of the following Python code?

```
>>>str1="helloworld"

>>>str1[::-1]
```

a) dlrowolleh
b) hello
c) world
d) helloworld
Answer: a

36. Which of the following statement prints hello\example\test.txt?
a) print(“hello\example\test.txt”)
b) print(“hello\\example\\test.txt”)
c) print(“hello\”example\”test.txt”)

d) print(“hello”\example”\test.txt”)

Answer: b

37. What will be the output of the following Python statement?

>>>chr(ord('A'))

a) A
b) B
c) a
d) Error
Answer: a

38. What will be the output of the “hello” +1+2+3 ?
a) hello123
b) hello
c) Error
d) hello6
Answer: c

39. Which of the following is a Python tuple?
a) [1, 2, 3]
b) (1, 2, 3)
c) {1, 2, 3}
d) {}
Answer: b

40. Suppose t = (1, 2, 4, 3), which of the following is incorrect?
a) print(t[3])
b) t[3] = 45
c) print(max(t))
d) print(len(t))
Answer: b

41. What will be the output of the following Python code?

>>>t=(1,2,4,3)

>>>t[1:3]

a) (1, 2)
b) (1, 2, 4)
c) (2, 4)

d) (2, 4, 3)
Answer: c

42. What will be the output of the following Python code?

```
>>>t1 = (1, 2, 4, 3)

>>>t2 = (1, 2, 3, 4)

>>>t1 < t2
```

a) True
b) False
c) Error
d) None
Answer: b

43. What will be the output of the following Python code?

```
>>>t = (1, 2)

>>>2 * t
```

a) (1, 2, 1, 2)
b) [1, 2, 1, 2]
c) (1, 1, 2, 2)
d) [1, 1, 2, 2]
Answer: a

44. What will be the output of the following Python code?

```
a=1,2,3,4
print(a)
```

a) (1, 2, 3, 4)

b) 1
c) 4
d) 1,2,3,4
Answer: a

45. What will be the output of the following Python code?

```
>>> a=(1,2)
>>> b=(3,4)
>>> c=a+b
```

>>> c
a) (4,6)
b) (1,2,3,4)
c) Error as tuples are immutable
d) None
Answer: b

46. What will be the output of the following Python code?

```
>>> a=(2,3,1,5)
>>> a.sort()
>>> a
```

a) (1,2,3,5)
b) (2,3,1,5)
c) None
d) Error, tuple has no attribute sort
Answer: d

47. What will be the output of the following Python code?

```
s1={3, 4}
s2={1, 2}
s3=set()
i=0
j=0
for i in s1:
    for j in s2:
        s3.add((i,j))
        i+=1
        j+=1
print(s3)
```

a) {(3, 4), (1, 2)}
b) Error
c) {(4, 2), (3, 1), (4, 1), (5, 2)}

d) {(3, 1), (4, 2)}

Answer: c

48. The _____ function removes the first element of a set and the last element of a list.
a) remove
b) pop
c) discard
d) dispose

Answer: b

49. What will be the output of the following Python code?

```
s=set([1, 2, 3])
s.union([4, 5])
print(s)
```

a){1, 2, 3}
b)[1,2,3]
c){1,2,3,4,5}
d)[1,2,3,4,5]
Ans: a

1. What is the output of the following code?

```
class EmployeeData:
   def __init__(self, sal=0, age=0):
self.sal = sal
self.age = age

   def getData(self):
      print("{0}+{1}j".format(self.sal,self.age))

empdata = EmployeeData()
empdata.getData()
```

a) Shows no data
b) 0+0j
c) Shows error
d) None of the above

2. What is the output of the following code?

```
class Test:
    def __init__(self, a="Hello World"):
self.a=a

    def display(self):
       print(self.a)

obj=test()
obj.display()
```

a) The program has an error because constructor can't have default arguments
b) Nothing is displayed
c) "Hello World" is displayed
d) The program has an error

3. What is the output of the following code?

```
class Change:
   def __init__(self, x, y, z):
self.a = x + y + z

x = Change(1,2,3)
y = getattr(x, 'a')

setattr(x, 'a', y+1)

print(x.a)
```

a) 6
b) **7**
c) Error
d) 0

4. Is the following piece of code correct?

```
class A:
   def __init__(self, b):
            self.b=b

   def display(self):
            print(self.b)

obj=A("Hello")
del obj
```

a) True
b) False

5. What is the output of the following code?

```
class Test:
   def __init__(self):
self.variable = 'Old'
self.Change(self.variable)

   def Change(self, var):
      var = 'New'

obj=Test()
print (obj.variable)
```

a) "Old"
b) "New"
c) Shows error
d) None of the above

6. What is the output of the following code?

```
class Fruits:
   def __init__(self, price):
self.price = price

obj=Fruits(50)

obj.quantity=10
obj.bags=2

print(obj.quantity+len(obj.__dict__))
```

a) 12
b) 52
c) 13
d) 60

7. What is the output of the following code?

```
class Demo:
   def __init__(self):
      pass

   def test(self):
      print(__name__)

obj = Demo()
obj.test()
```

a) __main__
b) __name__
c) main
d) Shows error

8. What is the output of following piece of code?

```
class Stud:
  def __init__(self, roll_no, grade):
self.roll_no = roll_no
self.grade = grade

  def display (self):
print("Roll no : ", self.roll_no,  ", Grade: ", self.grade)

stud1 = Stud(34, 'S')
stud1.age=7
print (hasattr(stud1, 'age'))
```

a) True
b) False
c) No output
d) Shows error

9. What is the output of the following piece of code?

```
class objects:
   def __init__(self):
      self.colour = None
      self._shape = "Circle"

   def display(self, s):
      self._shape = s

obj=objects()
print(obj._objects_shape)
```

a) The program runs fine because name mangling has been properly implemented
b) Error because the member shape is a protected member
c) Error because the proper syntax for name mangling hasn't been implemented
d) Error because the member shape is a private member

10. What will be the output of the following code?

```
class Sales:
   def __init__(self, id):
      self.id = id
      id = 100

val = Sales(123)
print (val.id)
```

a) Syntax error
b) 100
c) 123
d) None of the above

11. Which of the following statements are true for the given code snppet?

```
class A:
   def __init__(self, i = 0):
      self.i = i

class B(A):
   def __init__(self, j = 0):
      self.j = j

def main():
```

```
    b = B()
    print(b.i)
    print(b.j)

main()
```

a) **Class B inherits A, but the data field "i" in A is not inherited.**
b) Class B inherits A, thus automatically inherits all data fields in **A.**
c) When you create an object of B, you have to pass an argument such as B(5)
d) The data field "j" cannot be accessed by object b

12. What will be the output of the following code?

```
class A:
    def __init__(self):
        self.calcI(30)
        print("i from A is", self.i)

    def calcI(self, i):
        self.i = 2 * i;

class B(A):
    def __init__(self):
        super().__init__()

    def calcI(self, i):
        self.i = 3 * i;

b = B()
```

a) The __init__ method of only class B gets invoked
b) The __init__ method of class A gets invoked and it displays "i from A is 0"
c) The __init__ method of class A gets invoked and it displays "i from A is 60"
d) **The __init__ method of class A gets invoked and it displays "i from A is 90"**

13. What is the output of the following piece of code?

```
class Demo:
   count = 0

   def __init__(self):
      self.count += 1

   def get_count(self):
      return self.count

demo = Demo()
demo1 = Demo()

print (demo.get_count())
```

a) 1
b) 2
c) 0
d) None of the above

14. What is the output of the following code?

```
class Demo:
   count = 0

   def __init__(self):
      Demo.count += 1

   def get_count(self):
      return Demo.count

demo1 = Demo()
demo2 = Demo()
demo3 = Demo()

print (demo1.get_count())
```

a) 1
b) 2
c) 3
d) None of the above

15. What is the output of the following code?

```
class P:
  def __init__(self):
    self.__x=100
    self.y=200
  def print(self):
    print(self.__x, self.y)
class C(P):
  def __init__(self):
    super().__init__()
    self.__x=300
    self.y=400
d = C()
d.print()
```

a) 300 400
b) 100 400
c) 100 200
d) 300 200

16. What is the output of the following code?

```
class Demo:
   def __init__(self):
      self.a = 1
      self.__b = 1

   def display(self):
      return self.__b
obj = Demo()
print(obj.a)
```

a) The program has an error because there isn't any function to return self.a
b) The program has an error because b is private and display(self) is returning a private member
c) The program runs fine and 1 is printed
d) The program has an error as you can't name a class member using __b

17. What is the output of the following code?

```
class Demo:
   def __init__(self):
      self.a = 1
      self.__b = 1

   def display(self):
      return self.__b

obj = Demo()
print(obj.__b)
```

a) The program has an error because there isn't any function to return self.a
b) The program has an error because b is private and display(self) is returning a private member
c) The program has an error because b is private and hence can't be printed
d) The program runs fine and 1 is printed

18. Which of these is a private data field?

```
class Demo:
   def __init__(self):
      __a = 1
      self.__b = 1
```

```
    self.__c__ = 1
    __d__= 1
```

a) __a
b) _b
c) __c__
d) __d__

19. What is the output of the following code?

```
class Demo:
    def __init__(self):
        self.a = 1
        self.__b = 1

    def get(self):
        return self.__b

obj = Demo()
print(obj.get())
```

a) The program has an error because there isn't any function to return self.a
b) The program has an error because b is private and display(self) is returning a private member
c) The program has an error because b is private and hence can't be printed
d) The program runs fine and 1 is printed

20. What is the output for the following piece of code?

```
class Demo:
    def __init__(self):
        self.a = 1
        self.__b = 1
```

```
    def get(self):
        return self.__b
obj = Demo()
obj.a=45
print(obj.a)
```

a) **The program runs properly and prints 45**
b) The program has an error because the value of members of a class can't be changed from outside the class
c) The program runs properly and prints 1
d) The program has an error because the value of members outside a class can only be changed as self.a=45

21. What is the output of the following code?

```
class Fruits:
    def __init__(self):
        self.price = 100
        self.__bags = 5
    def display(self):
        print(self.__bags)
obj=Fruits()
obj.display()
```

a) The program has an error because display() is trying to print a private class member
b) The program runs fine but nothing is printed
c) The program runs fine and 5 is printed
d) The program has an error because display() can't be accessed

22. What is the output of the following code?

```
class Student:
    def __init__(self):
        self.marks = 97
        self.__cgpa = 8.7
```

```
    def display(self):
        print(self.marks)

obj=Student()
print (obj._student__cgpa)
```

a) The program runs fine and 8.7 is printed
b) Error because private class members can't be accessed
c) Error because the proper syntax for name mangling hasn't been implemented
d) The program runs fine but nothing is printed

23. What type of inheritance is illustrated in the following piece of code?

```
class A():
    pass
class B():
    pass
class C(A,B):
    pass
```

a) Multi-level inheritance
b) Multiple inheritance
c) Hierarchical inheritance
d) Single-level inheritance

24. What is the output of the following piece of code?

```
class A:
    def __init__(self):
        self.__i = 1
        self.j = 5

    def display(self):
        print(self.__i, self.j)

class B(A):
    def __init__(self):
```

```
        super().__init__()
        self.__i = 2
        self.j = 7

c = B()
c.display()
```

a) 2 7
b) 1 5
c) 1 7
d) 2 5

25. What is the output of the following code?

```
class A:
    def print_hello(self):
        print ("In class A")

class B(A):
    pass

class C(A, B):
    pass

c = C()

c.print_hello()
```

a) Prints “In class A”
b) Does not print anything
c) Shows error
d) None of the above

26. What is the output of the following code?

```
class A:
   def print_hello(self):
      print ("In class A")

class B(A):
   pass

class C(B, A):
   def print_hello(self):
      super(C, self).print_hello()
      print ("In class C")

c = C()
a = A()

a.print_hello()
c.print_hello()
```

a) **In class A**
   In class A
   In class C
b) In class C
   In class A
c) In class C
d) None of the above

27. What is the output of the following code?

```
class A:

   def __init__(self,x):

      self.x = x

   def count(self,x):

      self.x = self.x+1

class B(A):
```

```
    def __init__(self, y=0):
        A.__init__(self, 3)
        self.y = y
    def count(self):
        self.y += 1
def main():
    obj = B()
    obj.count()
    print(obj.x, obj.y)
main()
```

a) 3 0
b) 0 1
c) 3 1
d) None of the above

28. What is the output of the following piece of code when executed in the Python shell?

```
>>> class A:
        pass
>>> class B(A):
        pass
>>> obj=B()
>>> isinstance(obj,A)
```

a) True
b) False
c) Wrong syntax for isinstance() method
d) Invalid method for classes

29. Method issubclass() checks if a class is a subclass of another class. True or False?
a) True
b) False

30. What is the output of the following piece of code?

```
class A:
   def one(self):
      return self.two()
   def two(self):
      return 'A'
class B(A):
   def two(self):
      return 'B'
obj2=B()
print(obj2.two())
```

a) A
b) Exception is thrown
c) A B
d) B

31. Which of the following statements is true?

a) A non-private method in a superclass can be overridden
b) A subclass method can be overridden by the superclass
c) A private method in a superclass can be overridden
d) Overriding isn't possible in Python

32. Which of the following best describes inheritance?

a) Ability of a class to derive members of another class as a part of its own definition
b) Means of bundling instance variables and methods in order to restrict access to certain class members
c) Focuses on variables and passing of variables to functions
d) Allows for implementation of elegant software that is well designed and easily modified

33. Which of the following statements is wrong about inheritance?

a) Protected members of a class can be inherited
b) The inheriting class is called a subclass
c) Private members of a class can be inherited and accessed
d) Inheritance is one of the features of OOP

34. What is the output of the following code?

```
class Demo:
   def __new__(self):
self.__init__(self)
print("Demo's __new__() invoked")

   def __init__(self):
print("Demo's __init__() invoked")

class Derived_Demo(Demo):
   def __new__(self):
print("Derived_Demo's __new__() invoked")

   def __init__(self):
print("Derived_Demo's __init__() invoked")

def main():
   obj1 = Derived_Demo()
   obj2 = Demo()

main()
```

a) Derived_Demo's __init__() invoked
   Derived_Demo's __new__() invoked
   Demo's __init__() invoked
   Demo's __new__() invoked

b) Derived_Demo's __new__() invoked
   Demo's __init__() invoked
   Demo's __new__() invoked

c) Derived_Demo's __new__() invoked
   Demo's __new__() invoked

d) Derived_Demo's __init__() invoked
   Demo's __init__() invoked

35. Suppose B is a subclass of A, to invoke the __init__ method in A from B, what is the line of code you should write?

a) A.__init__(self)
b) B.__init__(self)
c) A.__init__(B)
d) B.__init__(A)

36. What is the output of the following code?

```
class Test:
   def __init__(self):
self.x = 0

class Derived_Test(Test):
   def __init__(self):
self.y = 1

def main():
   b = Derived_Test()
print(b.x,b.y)

main()
```

a) 0 1
b) 0 0
c) Error because class B inherits A but variable x isn't inherited
d) Error because when object is created, argument must be passed like Derived_Test(1)

37. What is the output of the following code?

```
class A():
   def disp(self):
print("A disp()")

class B(A):
   pass
```

```
obj = B()
obj.disp()
```

a) Invalid syntax for inheritance
b) Error because when object is created, argument must be passed
c) Nothing is printed
d) A disp()

38. What is the output of the following piece of code?

```
class A:
   def __init__(self, x= 1):
self.x = x

class der(A):
   def __init__(self,y = 2):
      super().__init__()
self.y = y

def main():
   obj = der()
print(obj.x, obj.y)

main()
```

a) Error, the syntax of the invoking method is wrong
b) The program runs fine but nothing is printed
c) 1 0
d) 1 2

39. Which of the following is not a type of inheritance?

a) Single-level
b) Double-level
c) Multiple
d) Multi-level

40. Which of the following statements is not true?

a) A non-private method in a superclass can be overridden
b) A derived class is a subset of superclass
c) The value of a private variable in the superclass can be changed in the subclass
d) When invoking the constructor from a subclass, the constructor of superclass is automatically invoked

41. What is the output of the following piece of code?

```
class A:
    def __init__(self,x):
        self.x = x
    def count(self,x):
        self.x = self.x+1

class B(A):
    def __init__(self, y=0):
        A.__init__(self, 3)
        self.y = y
    def count(self):
        self.y += 1

def main():
    obj = B()
    obj.count()
    print(obj.x, obj.y)

main()
```

a) 3 0
b) 3 1
c) 0 1
d) None of the above

42. What is the output of the following piece of code?

```
class A:
   def __init__(self):
      self.__x = 1
class B(A):
   def display(self):
      print(self.__x)
def main():
   obj = B()
   obj.display()
main()
```

a) 1
b) 0
c) Error, invalid syntax for object declaration
d) Error, private class member can't be accessed in a subclass

43. What is the output of the following piece of code?

```
class A:
   def test1(self):
      print(" test of A called ")

class B(A):
   def test(self):
      print(" test of B called ")

class C(A):
   def test(self):
      print(" test of C called ")

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

a) test of B called, test of C called
b) test of C called, test of B called
c) test of B called
d) Error, both the classes from which D derives has same method test()

44. What is the output of the following piece of code?

```
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 of C called")
      super().test()

class D(B,C):
   def test2(self):
      print("test of D called")

obj=D()
obj.test()
```

a) test of B called
   test of C called
b) test of C called
   test of B called
c) test of B called
   test of C called
   test of A called
d) Error, all the three classes from which D derives has same method test()

45. Which of the following best describes polymorphism?

a) Ability of a class to derive members of another class as a part of its own definition
b) Means of bundling instance variables and methods in order to restrict access to certain class members
c) Focuses on variables and passing of variables to functions
d) Allows for objects of different types and behaviour to be treated as the same general type

46. What is the output of the following piece of code?

```
class A:
    def __init__(self,x=3):
        self._x = x

class B(A):
    def __init__(self):
        super().__init__(5)

    def display(self):
        print(self._x)

def main():
    obj = B()
    obj.display()

main()
```

a) 5
b) 3
c) Error, class member x has two values
d) Error, protected class member can't be accessed in a subclass

47. What is the output of the following piece of code?

```
class A:
    def __str__(self):
        return '1'

class B(A):
    def __init__(self):
        super().__init__()

class C(B):
    def __init__(self):
        super().__init__()

def main():
    obj1 = B()
    obj2 = A()
    obj3 = C()
```

```
    print(obj1, obj2,obj3)

main()
```

a) 1 1 1
b) 1 2 3
c) '1' '1' '1'
d) An exception is thrown

48. What is the output of the following piece of code?

```
class Demo:
    def __init__(self):
        self.x = 1
    def change(self):
        self.x = 10
class Demo_derived(Demo):
    def change(self):
        self.x=self.x+1
        return self.x
def main():
    obj = Demo_derived()
    print(obj.change())

main()
```

a) 11
b) 2
c) 1
d) An exception is thrown

49. A class in which one or more methods are only implemented to raise an exception is called an abstract class. True or False?

a) True
b) False

50. What is the output of the following piece of code?

```
class A:
   def __repr__(self):
      return "1"
class B(A):
   def __repr__(self):
      return "2"
class C(B):
   def __repr__(self):
      return "3"

o1 = A()
o2 = B()
o3 = C()
print(obj1, obj2, obj3)
```

a)1 1 1
b) 1 2 3
c) '1' '1' '1'
d) An exception is thrown

51 .To create an abstract class, following built in base class is required.

a) ABC
b) XYZ
c) PQR
d) None of the above

52. Abstract class can't be instantiated.

a)**True**
b)False

53. What is the output of following code.

```
from abc import ABC, abstractmethod
class AbstractOperation(ABC):
   def __init__(self, operand_a, operand_b):
      self.operand_a = operand_a
      self.operand_b = operand_b
      super(AbstractOperation, self).__init__()
```

```
    @abstractmethod
    def execute(self):
        pass
    def f(self):
        print("Hello")
a=AbstractOperation(1,2)
a.f()
```

a) ‘Hello’
b) “hello”
c) Hello
d) Error

54. Abstract class can be created without abstract method.
a) False
b) True

55. Following code shows the concept of_____.

```
class computer:
    def writecode(self,text):
        print(text,"written in editor")
    def execute(self):
        print("Code executed")
class student:
    def dolabassignment(self,computer,assignment):
        computer.writecode(assignment)
        computer.execute()
c=computer()
s=student()
s.dolabassignment(c,"Assignment Code")
```

a) Aggregation
b) **Association**
c) Composition
d) None of the above

56. Following code shows the concept of_____.

```
class Players:
    def __init__(self,name):
        self.name=name
```

```
class team:
    def __init__(self):
        self.players=[]


    def addplayers(self,player):
        self.players.append(player)
P=Players("Sachin")
t=team()
t.addplayers(P)
print(t.players[0].name)
```

a) **Aggregation**
b) Association
c) Composition
d) None of the above

57. following code shows the concept of _____-.

```
class Room:
    pass
class Building:
    def __init__(self,room_count):
        self.rooms=[]
        for i in range(0,room_count):
            r=Room()
            self.rooms.append(r)
    def __del__(self):
        print("All rooms destroyed")
        del self.rooms
b=Building(3)
del(b)
```

a) Aggregation
b) Association
c) **Composition**
d) None of the above

58. Inheritance shows .
a) **IS A Relationship**
b) HAS A Relationship
c) USES Relationship
d)None of the above.

59. Concept of generalization can be seen in.
a) Polymorphism
b) **Inheritance**
c) Encapsulation
d) None of the above

60. USES Relationship is known as
a) Composition
b) **Association**
c)Specialization
d)Generalization