1. **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]

2. **What would be the output of following Python code?**

```
name1="Roger"
name2="Robert"

def swap_names(name1,name2):
    temp=name1
    name1=name2
    name2=temp

print("Before swapping: name1="+name1+" name2="+name2)
swap_names(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

3.Consider a Python dictionary which represents a ship's crew.

```
ship_crew={
            "Co-Captain":"Jack",
            "Chief officer":"Mack",
            "Chief steward":"Harry",
            "Chief cook":"Mala"
}
```

Jack has been promoted as a Captain and a new member Tom has joined as a Co-Captain.
What code should be written in order to have these details updated in the dictionary.
Choose TWO CORRECT options from below.

a) ship_crew['Co-Captain']="Tom"
ship_crew['Co-Captain']=ship_crew['Captain']

b) ship_crew['Co-Captain']="Tom"
ship_crew['Captain']="Jack"

c) ship_crew['Captain']=ship_crew['Co-Captain']
ship_crew['Co-Captain']="Tom"

d) ship_crew['Captain']="Tom"
ship_crew['Co-Captain']="Jack"

4. **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_val=math.ceil(count1/count2)
print(final_val)
```

a) 3
b) 2
c) 1
d) 4

5. **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

6.What would be the output of the below Python

```
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

7.What gets printed?

x = 4.5

y = 2

print(x//y)

a)2.0

b)2.25

c)9.0

d)20.25

e)21

8.What is answer of this expression, 22 % 3 is?

A.7

B.1

C.0

D.5

9.What is the output of this expression, 3*1**3?

A.27

B.9

C.3

D.1

10.Which of the following will run without errors ?

A.round(45.8)

B.round(6352.898,2,5)

C.round()

D.round(7463.123,2,1)

11.What is the result of round(0.5) – round(-0.5)?

A)1.0

B)2.0

C)0.0

D)None of the mentioned

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

A.31 characters

B.63 characters

C.79

characters

D.none of the mentioned

13.All keywords in Python are in

A.lower case

B.UPPER CASE

C.Capitalized

D.None of the mentioned

14.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

15.Which is invalid in python for z = 5 ?

A)z = z++

B)z = ++z

C)z += 1

D)z -= 1

16.What is the output of the following code?

eval("1+3*2")

A)‘1+6’

B)‘4*2’

C)‘1+3*2’

D)7

17.Which of the following is invalid?

a)_a = 1

b)__a = 1

c)__str__ = 1

d)none of the mentioned

18.Which of the following is an invalid variable?

a)my_string_1

b)1st_string

c)foo

d)_

19.Which of the following cannot be a variable?

a)__init__

b)in

c)it

d)on

20.Which is the correct operator for power(xy)?

a)x^y

b)x**y

c)x^^y

d)None of the mentioned

21.Which one of these is floor division?

a)/

b)//

c)%

d)None of the mentioned

22.What is the order of precedence in python?

i) Parentheses

ii) Exponential

iii) Multiplication

iv) Division

v) Addition

vi) Subtraction

a) i,ii,iii,iv,v,vi

b) ii,i,iii,iv,v,vi

c) ii,i,iv,iii,v,vi

d) i,ii,iii,iv,vi,v

23.What is the answer to this expression, 22 % 3 is?

a) 7

b) 1

c) 0

d) 5

24.Mathematical operations can be performed on a string.

a) True

b) False

25.Operators with the same precedence are evaluated in which manner?

a)Left to Right

b)Right to Left

c)Can’t say

d)None of the mentioned

26.Which one of the following has the same precedence level?

a)Addition and Subtraction

b)Multiplication, Division and Addition

c)Multiplication, Division, Addition and Subtraction

d)Addition and Multiplication

27.The expression int(x) implies that the variable x is converted to integer.

a) True

b) False

28.Which one of the following has the highest precedence in the expression?

a)Exponential

b)Addition

c)Multiplication

d)Parentheses

29.In python we do not specify types, it is directly interpreted by the compiler, so consider the following operation to be performed.

x = 13 ? 2

objective is to make sure x has a integer value, select all that apply (python 3.xx)

a) x = 13 // 2

b) x = int(13 / 2)

c) x = 13 % 2

d) All of the mentioned

30.What error occurs when you execute the following Python code snippet?

apple = fruit

a)SyntaxError

b)NameError

c)ValueError

d)TypeError

31.Which of the following results in a SyntaxError?

a)'"Once upon a time", she said.'

b)"He said, Yes!'"

c)'3\'

d)"Thats okay"

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

a=[1,2,3,4,5,6,7,8,9]

print(a[::2])

A. [1,2]

B. [8,9]

C. [1,3,5,7,9]

D. [1,2,3]

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

```
a=[1,2,3,4,5,6,7,8,9]
a[::2]=10,20,30,40,50,60
print(a)
```

A. ValueError: attempt to assign sequence of size 6 to extended slice of size 5

B. [10, 2, 20, 4, 30, 6, 40, 8, 50, 60]

C. [1, 2, 10, 20, 30, 40, 50, 60]

D. [1, 10, 3, 20, 5, 30, 7, 40, 9, 50, 60]

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

```
a=[1,2,3,4,5]
print(a[3:0:-1])
```

A. Syntax error

B. [4, 3, 2]

C. [4, 3]

D. [4, 3, 2, 1]

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

```
def f(value, values):
    v = 1
    values[0] = 44
t = 3
v = [1, 2, 3]
f(t, v)
print(t, v[0])
```

A. 1 44

B. 3 1

C. 3 44

D. 1 1

36. What Is The Correct Command To Shuffle The Following List?

fruit=['apple', 'banana', 'papaya', 'cherry']

A. fruit.shuffle()

B. shuffle(fruit)

C. random.shuffle(fruit)

D. random.shuffleList(fruit)

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

init_tuple = ()

print (init_tuple.__len__())

A. None

B. 1

C. 0

D. Exception

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

init_tuple_a = 'a', 'b'

init_tuple_b = ('a', 'b')

print (init_tuple_a == init_tuple_b)

A. 0

B. 1

C. False

D. True

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

init_tuple_a = '1', '2'

init_tuple_b = ('3', '4')

print (init_tuple_a + init_tuple_b)

A. (1, 2, 3, 4)

B. (‘1’, ‘2’, ‘3’, ‘4’)

C. [‘1’, ‘2’, ‘3’, ‘4’]

D. None

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

```
init_tuple_a = 1, 2
init_tuple_b = (3, 4)
[print(sum(x)) for x in [init_tuple_a + init_tuple_b]]
```

A. Nothing gets printed.

B. 4

C. 10

D. TypeError: unsupported operand type

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

```
init_tuple = [(0, 1), (1, 2), (2, 3)]
result = sum(n for _, n in init_tuple)
print(result)
```

A. 3

B. 6

C. 9

D. Nothing gets printed.

42. Which Of The Following Statements Given Below Is/Are True?

A. Tuples have structure, lists have an order.

B. Tuples are homogeneous, lists are heterogeneous.

C. Tuples are immutable, lists are mutable.

D. All of them.

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

```
l = [1, 2, 3]
init_tuple = ('Python',) * (l.__len__() - l[::-1][0])
print(init_tuple)
```

A. ()

B. (‘Python’)

C. (‘Python’, ‘Python’)

D. Runtime Exception.

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

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

A. Key Error

B. 1

C. {(2,3):2}

D. {(1,2):1}

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

```
a = {'a':1,'b':2,'c':3}
print (a['a','b'])
```

A. Key Error

B. [1,2]

C. {‘a’:1,’b’:2}

D. (1,2)

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

```
fruit = {}
def addone(index):
    if index in fruit:
        fruit[index] += 1
    else:
        fruit[index] = 1
addone('Apple')
addone('Banana')
addone('apple')
print (len(fruit))
```

A. 1

B. 2

C. 3

D. 4

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

```
arr = {}
arr[1] = 1
arr['1'] = 2
arr[1] += 1
sum = 0
for k in arr:
    sum += arr[k]
print (sum)
```

A. 1

B. 2

C. 3

D. 4

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

```
my_dict = {}
my_dict[1] = 1
my_dict['1'] = 2
my_dict[1.0] = 4
sum = 0
for k in my_dict:
    sum += my_dict[k]
print (sum)
```

A. 7

B. Syntax error

C. 3

D. 6

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

```
my_dict = {}
my_dict[(1,2,4)] = 8
my_dict[(4,2,1)] = 10
my_dict[(1,2)] = 12
sum = 0
for k in my_dict:
    sum += my_dict[k]
print (sum)
print(my_dict)
```

A. Syntax error

B. 30

{(1, 2): 12, (4, 2, 1): 10, (1, 2, 4): 8}

C. 47

{(1, 2): 12, (4, 2, 1): 10, (1, 2, 4): 8}

D. 30

{[1, 2]: 12, [4, 2, 1]: 10, [1, 2, 4]: 8}

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

```
box = {}
jars = {}
crates = {}
box['biscuit'] = 1
box['cake'] = 3
jars['jam'] = 4
crates['box'] = box
crates['jars'] = jars
print (len(crates[box]))
```

A. 1

B. 3

C. 4

D. Type Error

SQL:

1. A relational database consists of a collection of
a) Tables
b) Fields
c) Records
d) Keys

2. A _____ in a table represents a relationship among a set of values.
a) Column
b) Key
c) Row
d) Entry

3. The term _____ is used to refer to a row.
a) Attribute
b) Tuple
c) Field
d) Instance

4. The term attribute refers to a _____ of a table.
a) Record
b) Column
c) Tuple
d) Key

5. For each attribute of a relation, there is a set of permitted values, called the _____ of that attribute.
a) Domain
b) Relation
c) Set
d) Schema

6. Course(course_id,sec_id,semester)
Here the course_id,sec_id and semester are _____ and course is a _____
a) Relations, Attribute
b) Attributes, Relation
c) Tuple, Relation
d) Tuple, Attributes

7. The tuples of the relations can be of _____ order.
a) Any
b) Same
c) Sorted
d) Constant

8. A _____ is a property of the entire relation, rather than of the individual tuples in which each tuple is unique.
a) Rows
b) Key
c) Attribute
d) Fields

9. Which one of the following attribute can be taken as a primary key?
a) Name
b) Street
c) Id
d) Department

10. Which one of the following cannot be taken as a primary key?
a) Id
b) Register number
c) Dept_id
d) Street

11. An attribute in a relation is a foreign key if the _____ key from one relation is used as an attribute in that relation.
a) Candidate
b) Primary
c) Super
d) Sub

12. The relation with the attribute which is the primary key is referenced in another relation. The relation which has the attribute as a primary key is called
a) Referential relation
b) Referencing relation
c) Referenced relation
d) Referred relation

13. The _____ is the one in which the primary key of one relation is used as a normal attribute in another relation.
a) Referential relation
b) Referencing relation
c) Referenced relation
d) Referred relation

14. A _____ integrity constraint requires that the values appearing in specified attributes of any tuple in the referencing relation also appear in specified attributes of at least one tuple in the referenced relation.
a) Referential
b) Referencing
c) Specific
d) Primary

15. If you were collecting and storing information about your music collection, an album would be considered a(n) _____
a) Relation
b) Entity
c) Instance
d) Attribute