

Q -1 to Q-30 [1 Mark each]

Q -31 to Q-35 [3 Mark each]

1. 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

2. 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

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

```
i = 1
```

```
while True:
```

```
    if i%3 == 0:
```

```
        break
```

```
    print(i)
```

```
    i+=1
```

- ☒ a) 1 2
- b) 1 2 3
- c) error
- d) none of the mentioned

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

```
i = 1
```

```
while False:
```

```
    if i%2 == 0:
```

```
        break
```

```
    print(i)
```

```
    i += 2
```

a) 1

b) 1 3 5 7 ...

c) 1 2 3 4 ...

☒ d) none of the mentioned

5. Which of the following is invalid?

a) `_a = 1`

b) `__a = 1`

c) `__str__ = 1`

☒ d) none of the mentioned

6. Which is the correct operator for power(x)?

a) `X^y`

b) `X**y`

c) `X^^y`

d) None of the mentioned

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

a) 27

b) 9

c) 3

d) 1

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

```
def example(a):
```

```
    a = a + '2'
```

```
    a = a*2
```

```
    return a
```

example("hello")

- a) indentation Error
- b) cannot perform mathematical operation on strings
- c) hello2
- d) hello2hello2

9. 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'

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

```
i = 0
```

```
while i < 5:
```

```
    print(i)
```

```
    i += 1
```

```
    if i == 3:
```

```
        break
```

```
else:
```

```
    print(0)
```

- a) 0 1 2 0
- b) 0 1 2
- c) error
- d) none of the mentioned

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

```
x = "abcdef"
```

```
i = "a"
```

```
while i in x:
```

```
    print(i, end = " ")
```

- a) no output
- b) i i i i i ...
- c) a a a a a a ...
- d) a b c d e f

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

```
d = {0: 'a', 1: 'b', 2: 'c'}
```

```
for x in d.keys():
```

```
    print(d[x])
```

- a) 0 1 2
- b) a b c
- c) 0 a 1 b 2 c
- d) none of the mentioned

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

```
for i in range(10):
```

```
    if i == 5:
```

```
        break
```

```
    else:
```

```
        print(i)
```

```
else:
```

```
    print("Here")
```

- a) 0 1 2 3 4 Here
- b) 0 1 2 3 4 5 Here
- c) 0 1 2 3 4
- d) 1 2 3 4 5

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

```
names = ['Amir', 'Bear', 'Charlton', 'Daman']
```

```
print(names[-1][-1])
```

- a) A
- b) Daman
- c) Error
- d) n

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

```
names1 = ['Amir', 'Bear', 'Charlton', 'Daman']
```

```
names2 = names1
```

```
names3 = names1[:]
```

```
names2[0] = 'Alice'
```

```
names3[1] = 'Bob'
```

```
sum = 0
```

```
for ls in (names1, names2, names3):
```

```
    if ls[0] == 'Alice':
```

```
        sum += 1
```

```
    if ls[1] == 'Bob':
```

```
        sum += 10
```

```
print(sum)
```

a) 11

b) 12

c) 21

d) 22

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

```
myList = [1, 5, 5, 5, 5, 1]
```

```
max = myList[0]
```

```
indexOfMax = 0
```

```
for i in range(1, len(myList)):
```

```
    if myList[i] > max:
```

```
        max = myList[i]
```

```
        indexOfMax = i
```

```
print(indexOfMax)
```

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

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

```
k = [print(i) for i in my_string if i not in "aeiou"]
```

- a) prints all the vowels in my_string
- b) prints all the consonants in my_string
- c) prints all characters of my_string that aren't vowels
- d) prints only on executing print(k)

18. Which of the following is the correct expansion of `list_1 = [expr(i) for i in list_0 if func(i)]`?

a) `list_1 = []`

```
for i in list_0:
```

```
    if func(i):
```

```
        list_1.append(i)
```

b) `for i in list_0:`

```
    if func(i):
```

```
        list_1.append(expr(i))
```

c) `list_1 = []`

```
for i in list_0:
```

```
    if func(i):
```

```
        list_1.append(expr(i))
```

d)None

19. Write a list comprehension equivalent for the Python code shown below.

```
for i in range(1, 101):
```

```
    if int(i*0.5)==i*0.5:
```

```
        print(i)
```

- a) [i for i in range(1, 100) if int(i*0.5)==(i*0.5)]
- b) [i for i in range(1, 101) if int(i*0.5)==(i*0.5)]
- c) [i for i in range(1, 101) if int(i*0.5)=(i*0.5)]
- d) [i for i in range(1, 100) if int(i*0.5)=(i*0.5)]

20. What is the list comprehension equivalent for: `list(map(lambda x:x**-1, [1, 2, 3]))`?

- a) [1|x for x in [1, 2, 3]]
- b) [-1**x for x in [1, 2, 3]]
- c) [x**-1 for x in [1, 2, 3]]
- d) [x^-1 for x in range(4)]

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

```
x = 50
```

```
def func(x):
```

```
    print('x is', x)
```

```
    x = 2
```

```
    print('Changed local x to', x)
```

```
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

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

```
def power(x, y=2):
```

```
    r = 1
```

```
    for i in range(y):
```

```
        r = r * x
```

```
    return r
```

```
print(power(3))
```

```
print(power(3, 3))
```

- a) 212 32

b) 9 27

c) 567 98

d) None

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

```
def writer():
```

```
    title = 'Sir'
```

```
    name = (lambda x: title + ' ' + x)
```

```
    return name
```

```
who = writer()
```

```
who('Arthur')
```

a) Arthur Sir

b) Sir Arthur

c) Arthur

d) None of the mentioned

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

```
L = [lambda x: x ** 2,
```

```
     lambda x: x ** 3,
```

```
     lambda x: x ** 4]
```

```
for f in L:
```

```
    print(f(3))
```

a) 27 81 343

b) 6 9 12

c) 9 27 81

d) None

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

import random

re.findall('good', 'good is good')

re.findall('good', 'bad is good')

a) ['good', 'good'] ['good']

b) ('good', 'good') (good)

c) ('good') ('good')

d) ['good'] ['good']

26. _____ removes all rows from a table without logging the individual row deletions.

a) DELETE

b) REMOVE

c) DROP

d) TRUNCATE

27. What is the purpose of the SQL AS clause?

a) The AS SQL clause is used to change the name of a column in the result set or to assign a name to a derived column

b) The AS clause is used with the JOIN clause only

c) The AS clause defines a search condition

d) All of the mentioned

28. Which TCL command undo all the updates performed by the SQL in the transaction?

a) ROLLBACK

b) COMMIT

c) TRUNCATE

d) DELETE

29. Find all the tuples having a temperature greater than 'Paris'.

a) SELECT * FROM weather WHERE temperature > (SELECT temperature FROM weather WHERE city = 'Paris')

b) SELECT * FROM weather WHERE temperature > (SELECT * FROM weather WHERE city = 'Paris')

c) SELECT * FROM weather WHERE temperature > (SELECT city FROM weather WHERE city = 'Paris')

d) SELECT * FROM weather WHERE temperature > 'Paris' temperature

30. Which of the following statements contains an error?

- a) `SELECT * FROM emp WHERE empid=10003;`
- b) `SELECT empid FROM emp WHERE empid=10006;`
- c) `SELECT empid FROM emp;`
- d) `SELECT empid WHERE empid=1009 AND lastname = 'GELLER';`

31. Define a function which can print a dictionary where the keys are numbers between 1 and 20 (both included) and the values are square of keys.

Hints:

Use `dict[key]=value` pattern to put entry into a dictionary.

Use `**` operator to get power of a number.

Use `range()` for loops.

32. Write a program which accepts a sequence of words separated by whitespace as input to print the words composed of digits only.

Example:

If the following words is given as input to the program:

2 cats and 3 dogs.

Then, the output of the program should be:

`['2', '3']`

In case of input data being supplied to the question, it should be assumed to be a console input.

Hints:

Use `re.findall()` to find all substring using regex.

33. Write a program to compute $1/2+2/3+3/4+\dots+n/n+1$ with a given n input by console ($n>0$).

Example:

If the following n is given as input to the program:

5

Then, the output of the program should be:

3.55

In case of input data being supplied to the question, it should be assumed to be a console input.

Hints:

Use float() to convert an integer to a float

34. With a given list [12,24,35,24,88,120,155,88,120,155], write a program to print this list after removing all duplicate values with original order reserved.

Hints:

Use set() to store a number of values without duplicate.

35. Write a program that computes the net amount of a bank account based a transaction log from console input. The transaction log format is shown as following:

D 100

W 200

D means deposit while W means withdrawal.

Suppose the following input is supplied to the program:

D 300

D 300

W 200

D 100

Then, the output should be:

500

Hints:

In case of input data being supplied to the question, it should be assumed to be a console input.