

**HALF YEARLY EXAMINATION (2021-2022)**

**Subject: Computer Science**

**Grade: XII**

**Time Allowed: 90 minutes**

**Max. Mark: 35**

**Date : 22.09.2021**

**Day : Wednesday**

**General Instructions:**

1. Please read the instructions carefully
2. This Question Paper is divided into 03 sections, viz., Section A, Section B and Section C.
3. Section A, consist of 25 questions (1-25). Attempt any 20.
4. Section B, consist of 24 questions (26-49). Attempt any 20.
5. Section C, consist of 6 competency-based questions (50-55). Attempt any 5 questions.
6. Overall attempt 45 questions out of 55 questions.
7. Marks will be reduced to 35.
8. All questions carry equal marks.

**SECTION A**

**Answer any 20 questions out of the given 25 questions on Revision of Python topics covered in Class XI and Functions. (1 x 20 = 20 marks)**

1. Which of the following term is immutable?

- a) Tuples
- b) Strings
- c) List
- d) Tuples and String

Ans. Tuples and String

2. Write the output of the following

```
>>>7 == 3.5 ** 2
```

- a) True
- b) False
- c) 7
- d) Not equivalent

Ans. False

3. How many spaces are there in one indentation level?

- a) 2
- b) 3



- c) 4
- d) 7

Ans. 4

4. Which of the following cannot be a variable?

- a) upon
- b) in
- c) it
- d) on

Ans. in

5. Smallest unit/element of python program is called \_\_\_\_\_.

Token

String

Variable

Keyword

Ans. token

6. Write the output of the following:

```
a, b = 2, 6
```

```
a, b, b = a+b, 2, 3
```

```
print(a,b)
```

- a) 2,6
- b) 6,2
- c) 8,3
- d) 8,6

Ans.

8, 3

7. Write the length of following tuple :

```
T1 = (1,(2,3),(((34,56),45,67),39))
```

- a) 1
- b) 3
- c) 5
- d) 7

Ans. 3

8. Write the output of the following :

```
T1 = (1, (2, 'a'), (3, 'b', 'c'), (7, 'd', 'e', 'f'))
print(len(T1))
print(T1[1][0])
print(7 in T1[3])
```

- a) 1; 2; 7
- b) 4; 2; True
- c) 1; 2; True
- d) 4; 2; False



Ans. 4; 2; true

9. Write the output of the following :

```
T1 = ('a') * 3
print(T1)
print(type(T1))
```

- a) aaa; <class 'str'>
- b) 333; <class 'str'>
- c) aaa; <'str'>
- d) aaa; <class 'int'>

Ans. aaa; <class 'str'>

10. Write the output of the following :

```
T1 = (1, 2, 3, 4, 5, 6, 7, 8)
print(T1[:])
```

- a) (1, 2, 3, 4, 5, 6, 7, 8)
- b) ()
- c) (2, 3, 4, 5, 6, 7, 8)
- d) (1, 2, 3, 4, 5, 6, 7)

Ans.

(1, 2, 3, 4, 5, 6, 7, 8)

11. Write the output of the following :

```
T1 = ('Hockey', 'Cricket', 'Football')
print(max(T1))
```

- a) Hockey
- b) Cricket
- c) Football
- d) 8

Ans. Hockey

12. Write the output of the following:

```
a = "My age is"
b = 16
print(a + b)
```

- a) My age is 16
- b) My age is



- c) 16
- d) ERROR

Ans. ERROR

13. Traversing a list can be done with the help of \_\_\_\_\_
- a) loop
  - b) if
  - c) if-elif
  - d) None of the above

Ans. loop

14. Write the output of the following:

- ```
list1=[3,2,5,7,3,6]
list1.remove(3)
print(sum(list1))
```
- a) 23
  - b) 20
  - c) 19
  - d) None of the above

Ans. 23

15. Which of the following is not a list operation?

- a) Indexing
- b) Slicing
- c) Dividing
- d) Concatenation

Ans. Dividing

16. Name the operator which is used in the following print statement.

- ```
print(L1 * 2)
```
- a) Concatenation
  - b) Repetition
  - c) Membership
  - d) None of the above

Ans. Repetition

17. The for loop in Python is an \_\_\_\_\_

- a) Entry Controlled Loop ✓
- b) Exit Controlled Loop



- c) Both of the above
- d) None of the above

18. A loop block in python starts with a –

- a) ; (semicolon)
- b) , (comma)
- c) : (colon) ✓
- d) # (hash)

19. Which of the following is True regarding loops in Python?

- a) Loops should be ended with keyword “end”.
- b) No loop can be used to iterate through the elements of strings.
- c) continue is used to continue with the remaining statements inside the loop.
- d) break can be used to bring control out of the current loop. ✓

20. Which term describes a loop that continues repeating without a terminating (ending) condition?

- a) Infinite Loop ✓
- b) Conditional Loop
- c) Unlimited Loop
- d) Sequence Loop

21. To display the starting index for the substring ‘vo’

- a) str.disp(‘vo’)
- b) str.startind(‘vo’)
- c) str.find(‘vo’) ✓
- d) None of the above

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

- ```
x="AmaZing"  
print(x[3:], "and", x[:2])
```
- a) Amazing and ZI
  - b) aZing and Zin
  - c) Zing and Am ✓
  - d) Azing and zin

23. The \_\_\_\_\_ function returns the exact copy of the string with the first letter in uppercase.

- a) find()
- b) copy()
- c) upper()
- d) capitalize() ✓

24. What is the output of the following code:

```
example = "helle"  
example.find("e")
```

- a) Error
- b) -1
- c) 1 ✓



d) both b and c  
Ans : both b and c

25. What is the output of the following?  
`print('Ab!2'.swapcase())`

- a) AB!@
- b) ab12
- c) aB!2 ✓
- d) aB1@

### SECTION B

This section consists of 24 Questions (26 to 49). Attempt any 20 questions.

26. Evaluate the following expressions

`12 % 4 + 6 + 4 // 3`

- a) 4
- b) 6
- c) 7
- d) 10

Ans 7

27. Write the output of the following Python code:

```
for i in range(2,7,2):  
    print(i * '$')
```

- a) 2\$  
4\$  
6\$
- b) \$\$ ✓  
\$\$\$\$  
\$\$\$\$\$\$
- c) 2\$4\$6\$
- d) None of the above

28. Find and write the output of the following python code:

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

- a) a
- b) a a a a a a
- c) a a a a a a ... infinite times ✓
- d) Code will generate error

29. Find the output of the following program segments:

```
i = 0  
sum = 0  
while i < 9:  
    if i % 4 == 0:  
        sum = sum + i
```



```
i = i + 2
print (sum)
```

- a) Infinite Loop
- b) 12 ✓
- c) 14
- d) 10

30. Which of the following call to range() in Python will not yield anything?

- a) range(-5, -1)
- b) range(-1, -5, -1)
- c) range(-5) ✓
- d) All of the above

31. What will be the final value of I after execution of the loop:

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

```
print(I)
```

- a) 0 to 10
- b) 0 to 9 ✓
- c) None
- d) Error

32. Answer the following:

A) Assertion : b = "Hello, World!" print(b[:5]) will give output "Hello"

(R) Reason : This will give get the characters from start position(5 not included)

- (a) A is true but R is false
- (b) A is true and R is correct explanation of A ✓
- (c) A and B both are false
- (d) A is true but R is not correct explanation of A

33. Answer the following:

(A) Assertion str1="Hello" and str1="World" then print(str1\*3) will give error

(R) Reason : \* replicates the string hence correct output will be

HelloHelloHello

- (a) A is true but R is false
- (b) A is true but R is not correct explanation of A
- (c) A and B both are false
- (d) A is false and R is correct

Ans: c

34. Which statement will display the last four characters?

- (a) str[-4:] ✓
- (b) str[:-4]
- (c) str[::]
- (d) str[:-4]

35. Ms. Suman is working on a binary file and wants to write data from a list to a binary file. Consider list object as l1, binary file suman\_list.dat, and file object as f. Which of the following can be the correct statement for her?

- a) f = open('sum\_list','wb'); pickle.dump(l1,f)



- b) f = open('sum\_list','rb'); l1=pickle.dump(f)
- c) f = open('sum\_list','wb'); pickle.load(l1,f)
- d) f = open('sum\_list','rb'); l1=pickle.load(f)

Ans: a

Which option will be correct for reading file for suman from above question?

Ans. f = open('sum\_list','rb'); l1=pickle.load(f)

36. In which of the file mode existing data will be intact in binary file?

- a) ab
- b) a
- c) w
- d) wb

Ans: a

37. Which one of the following is correct statement?

- a) import – pickle
- b) pickle import
- c) import pickle
- d) All of the above

Ans: c

38. Find the correct order for steps follow to print data from csv file in list object .

- i. Open the csv file in reading mode – f = open("demo.csv","r")
  - ii. Import csv module – import csv
  - iii. close the csv file – f.close()
  - iv. Use list object to store the data read from csv using reader – data = csv.reader(f)
- a) i, ii, iii, iv
  - b) iv, iii, i, ii
  - c) ii, iv, i, iii
  - d) iv, i, ii, iii

Ans: d

39. Write the missing python code to create a header row for CSV file "students.csv".  
The column names are : Adm.No, StudentName, City, Remarks

```
from csv import writer
.....
dt = writer(f)
dt.writerow(['Admno','StudentName','City','Remarks'])
f.close()
```

- a) f = open("students.csv","w",newline="")
- b) file = open("students.csv","w",newline="")
- c) f = open("students.csv","r",newline="")
- d) file = open("students.csv","rb",newline="")

Ans. a, f = open("students.csv","w",newline="")

40. Find and write the output of the following python code:

```
def fun(s):
    k=len(s)
    m=" "
    for i in range(0,k):
```



```

if(s[i].isupper()):
m=m+s[i].lower()
elif s[i].isalpha():
m=m+s[i].upper()
else:
m=m+'bb'
print(m)
fun('school2@Com')

```

- a) school2@Com
- b) SCHOOLbbbbcOM
- c) SCHOOL2@Com
- d) schoolbbbCom

Ans. SCHOOLbbbbcOM

41. Consider the following code and answer the questions that follow:

Book={1:'Thriller', 2:'Mystery', 3:'Crime', 4:'Children Stories'}

Library ={'5':'Madras Diaries','6':'Malgudi Days'}

Ramesh needs to change the title in the dictionary book from 'Crime' to 'Crime Thriller'. He has written the following command:

Book['Crime']='Crime Thriller'

But he is not getting the answer. Help him choose the correct command:

- a) Book[2]='Crime Thriller'
- b) Book[3]='Crime Thriller'
- c) Book[2]=('Crime Thriller')
- d) Book[3] =('Crime Thriller')

Correct Answer: b

42. Your teacher has given you a method/function FilterWords() in python which read lines from a text file NewsLetter.TXT, and display those words, which are lesser than 4 characters. Your teachers intentionally kept few blanks in between the code and asked you to fill the blanks so that the code will run to find desired result. Do the needful with the following python code.

```
def FilterWords():
```

```
    c=0
```

```
    file=open('NewsLetter.TXT', '_____') #Statement-1
```

```
    line = file._____ #Statement-2
```

```
    word = _____ #Statement-3
```

```
    for c in word:
```

```
        if _____: #Statement-4
```

```
            print(c)
```

```
            _____ #Statement-5
```

```
FilterWords()
```

**Fill in the blank in statement-2 to read the data from the file.**

- a) File.Read()
- b) file.read()



- c) read.lines()
- d) readlines()

Correct Answer: b. file.read()

43. Fill in the blank in statement-4, which display the word having lesser than 4 characters. (read Q.No. 43)

- a) len(c) ==4
- b) len(c)<4
- c) len ()= =3
- d) len ()==3

Correct Answer: len(c)<4

44. Write the output of the following code :

```
>>>L=[1,2,3,4,5,[6,7,8]]
>>>print(L[5])
```

- a) [6, 7, 8]
- b) 6, 7, 8
- c) Error
- d) 6

Ans. a. [6, 7, 8]

45. Write the output of the following code :

```
L=[0.5 * x for x in range(4)]
print(L)
```

- a) [0.0, 0.5, 1.0, 1.5]
- b) (0,.5, 1, 1.5)
- c) [0.0, 0.5, 1.0, 1.5, 2.0]
- d) Error

Ans. a. [0.0, 0.5, 1.0, 1.5]

46. Write the output of the following :

```
L = [[5, 7, 9, 1 ], [12, 23, 4, 9]]
```

```
for r in L:
```

```
    r.reverse()
```

```
    for e in r:
```

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

- a) 1 9 7 5 9 4 23 12
- b) 1 9 7 5  
9 4 23 12
- c) Error
- d) None of the above

Ans. B. 1 9 7 5  
9 4 23 12

47. Write a statement to print 30 from the given tuple.



```
a = ("Seventy", [1, 2, 3], (20, 30, 40), "Eighty")
```

- a) print(a[3][1])
- b) print(a[1][2])
- c) print(a[0][1])
- d) print(a[2][1])

Ans. print(a[2][1])

48. Fill in the blanks in the following code :

```
import _____  
t = (20, 30, 40, 50, 60, 70)  
A = random.randint(1, 3)  
B = random.randint(2, 4)  
for i _____ range(A, B):  
    print (t[i],end= "@")
```

- a) random;in
  - B) csv; in
  - C) txt; in
  - D) random; out
- Ans. random; in

### SECTION C

#### Case Study based Questions

.Answer any 5 questions out of the given 6 questions. (1 x 5 = 5 marks)

Samita Patel is a programmer, who has recently been given a task to write a python code to perform the following CSV file operations with the help of two user defined functions/modules:

- a. CSVOpen() : to create a CSV file called BOOKS.CSV in append mode containing information of books – Title, Author and Price.
- b. CSVRead() : to display the records from the CSV file called BOOKS.CSV where the field title starts with 'R'.

She has succeeded in writing partial code and has missed out certain statements, so she has left certain queries in comment lines.

```
import _____  
def CSVOpen():  
    with open('books.csv','_____',newline=") as csvf: #Statement-1  
        cw=_____ #Statement-2 #Statement-3  
        cw.writerow(['Rapunzel','Jack',300])  
        cw.writerow(['Barbie','Doll',900])  
        cw.writerow(['Johnny','Jane',280])  
  
def CSVRead():
```



```

try:
    with open('books.csv','r') as csvf: cr=___ #Statement-4
        for r in cr:
            if _____: #Statement-5 print(r)
except:
    print('File Not Found')

```

CSVOpen() CSVRead()

You as an expert of Python have to provide the missing statements and other related queries based on the following code of Radha.

49. Choose the appropriate mode in which the file is to be opened in append mode (Statement 1)

- a) w+
- b) ab
- c) r+
- d) a

Correct Answer: d. a

50. Which statement will be used to create a csv writer object in Statement 2.

- a) csv.writer(csvf)
- b) csv.writer(csvf)
- c) csvf.writer()
- d) cs.writer(csvf)

Correct Answer: b. csv.writer(csvf)

51. Choose the correct option for Statement 3 to write the names of the column headings in the CSV file, BOOKS.CSV.

- a) cw.writerow('Title','Author','Price')
- b) cw.writerow(['Title','Author','Price'])
- c) cw.writerows('Title','Author','Price')
- d) cw.writerows(['Title','Author','Price'])

Correct Answer: b. cw.writerow(['Title','Author','Price'])

52. Which statement will be used to read a csv file in Statement 4.

- a) cs.read(csvf)
- b) csv.reader(csvf)
- c) csvf.read()
- d) csvf.reader(cs)

Correct Answer: b. csv.reader(csvf)

53. Fill in the appropriate statement to check the field Title starting with 'R' for Statement 5 in the above program.

- a) r[0][0]=='R'
- b) r[1][0]=='R'
- c) r[0][1]=='R'
- d) r[1][1]=='R'



Correct Answer: a. `r[0][0]=='R'`

54. Identify the suitable module for the given code:

- a) csv file
- b) CSV
- c) csv
- d) Csv

Correct Answer : c) csv

