# **SAMPLE PAPER 1**

## COMPUTER SCIENCE

A Highly Simulated Practice Questions Paper for CBSE **Class XII** (Term I) Examination

#### Instructions

- 1. This question paper is divided into three sections.
- 2. Section A contains 25 questions (1-25). Attempt any 20 questions.
- 3. Section B contains 24 questions (26-49). Attempt any 20 questions.
- 4. Section C contains 6 case study based questions (50-55). Attempt any 5 questions.
- 5. Each question carries 0.77 mark.
- 6. There is **no** negative marking.

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Maximum Marks : 35 Time allowed : 90 min

#### Section A

*This section consists of 25 questions (1 to 25). Attempt any 20 questions from this section. Choose the best possible option.* 

1.	is a logical instr	ructions, which Python	interpreter can read a	nd execute.
	(a) Expression	(b) Statement	(c) Comment	(d) Identation
2.	Which comments sta (a) Double line	rrt with # symbol? (b) Multi-line	(c) Single line	(d) All of these
3.	Which data type con	tains only numeric val	ue in Python?	
	(a) Numbers	(b) Strings	(c) Lists	(d) Tuples
4.	Index of refer	rs to first element.		
	(a) 1	(b) – 1	(c) 0	(d) n+1
5.	This function is used	l to calculate total occu	rrence of given elemen	ts of list.
	(a) len()	(b) sum()	(c) count()	(d) extend()
6.	Which of the followi represent as (,)?	ng is a collection of Py	thon objects separated	by commas
	(a) List	(b) Tuple	(c) Dictionary	(d) String
7.	a tuple is a te	chnique to access an ir	ndividual element of th	at tuple.
	(a) Comparing	(b) Accessing	(c) Concatenation	(d) Traversing

8.	You can repeat the elements of the tuple using which operator?								
	(a) *	(b) +	(c) **	(d) %					
9.	are used to pass (a) Arguments	s the value of a variable (b) Parentheses	e to a function. (c) Classes	(d) Objects					
10.	non-void functions a (a) non functions	rre also known as (b) valid functions	(c) fruitful functions	(d) invalid functions					
11.	A variable declared i (a) global variable	in a block is local to tha (b) local variable	at block and is known a (c) multi variable	as (d) single variable					
12.	What is the mean of (a) Local	L in LEGB rule for sco (b) Last	pe resolution? (c) Least	(d) Library					
13.	In which file, no deli (a) Text file	imiters are used for lin (b) Binary file	e and no translations o (c) CSV file	ccur? (d) None of these					
14.	Which attribute is us (a) mode.file	sed to return access mo (b) mode.file.name	ode with that file was o (c) file.mode	pened? (d) file.mode.type					
15.	method takes (a) writelines()	a string and writes it : (b) write()	in the file. (c) writerow()	(d) writer()					
16.	<ul> <li>For readline(), a line is terminated by</li> <li>(a) '\n'</li> <li>(b) EOF</li> </ul>		(c) Either (a) or (b)	(d) None of these					
17.	Which of the followi (a) Lists are immutabl (b) Size of the lists mu (c) Elements of lists an (d) size(list1) comman	ng is true regarding lis le. 1st be specified before its re stored in contagious r nd is used to find the siz	sts in Python? s initialisation. nemory location. e of lists.						
18.	Suppose list1 is [56, (a) Error	89, 75, 65, 99], what is (b) 75	the output of list1 [– 2] (c) 99	? (d) 65					
19.	<ul> <li>Which one of the fol</li> <li>(a) In Python, a diction</li> <li>(b) In Python, a diction</li> <li>(c) In Python, a diction</li> <li>(c) In Python, a diction</li> <li>(d) In Python, a diction</li> </ul>	lowing is correct? onary can have two sam onary can have two sam onary can have two sam pair. onary can neither have t	e keys with different val e values with different k e keys or same values bu wo same keys nor two s	ues. æys. ut cannot have two ame values.					
20.	<pre>dl={"abc":5,"def": print(d1[0])</pre>	6,"ghi":7}							
	What will be the out (a) abc	put of above Python co (b) 5	ode? (c) {"abc":5}	(d) Error					
21.	Which of these about (a) The values of a dict (b) The keys of a dicti (c) Dictionaries are no (d) Dictionaries are m	t a dictionary is false? ctionary can be accessed onary can be accessed u ot ordered. utable.	using keys. sing values.						

22.	str1="659.31" print("str1")			
	What will be the out $(a)$ 1	put of above Python c	ode?	(d) str1
23.	Which of the followi str1="python"	ng will result in an er	(c) 1.5	
24.	<ul> <li>(a) print(str1[5])</li> <li>Which of the followi</li> <li>(a) String is immutab</li> <li>(b) capitalize() function string into upperd</li> <li>(c) lower() function is into lowercase.</li> <li>(d) None of the above</li> </ul>	(b) Strift] - Xy2 ng is false? ole. on in string is used to re case. n string is used to retur e	turn a string by converting	ng the whole given
25.	What will be the foll strl="Stack of book print(len(strl)) (a) 13	owing Python code re s" (b) 14	turn? (c) 15	(d) 16

Section **B** 

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

26. What is the output of following code? L = [34, 89] print(L\*3) (a) Syntax error (b) [34, 89, 34, 89, 34, 89] (c) [102, 267] (d) [37, 92]

**27.** Suppose the content of file "para.txt" is

Hello...How are you? Hi...I am fine. What are you doing now? Hmm... nothing special.

What will be the output of following code?

myfile = open("para.txt", "r")
s = myfile.read(15)
print(s)
myfile.close()
(a) Hello...How are
(c) Hello...How are you
(d) Hello...How are you?
Hi

**28.** Identify the output of the following Python statement.

```
def test(a,b):

    s = a+b*2

    print(s)

test(12,5)

(a) 34 (b) 17 (c) 22 (d) 29
```

**29.** How many times will the given loop iterate? i = 0while(i<25):</pre> print("Python") i = i + 1(a) 24 (b) 25 (c) 26 (d) None of these **30** Find the output of the following code. j=1 while (i<15): print(i) i = i\*2 (a) 1 (b) 2 (c) 1 (d) 2 2 4 2 4 4 6 4 8 8 6 8 8 10 10 12 12 14 14 **31.** Identify the output of the following Python statement. list1=[4,3,7,9,15,0,3,2] s = list1[2:5]print(s) (a) [7,9,15,0] (b) [3,7,9,15] (c) [7,9,15] (d) [7,9,15,0,3] **32.** Observe the following code and answer the question that follow. File = open("Mydata", "a") #Blank File. close() Fill in the blank with statement to write "ABC" in the file "Mydata". (a) File.write() (b) File.write(ABC) (c) write(ABC) (d) File.write("ABC") **33.** Observe the code. def insert(): import pickle file1 = open('college.txt'.'a') while True: y = input("Enter something") pickle.dump(y,file1) ans = input("Want to enter more data Y/N") if(ans.upper() = = 'N'): #Line1 file1.close() insert() Above code is used to insert element or data into an existing text file. Write appropriate jump statement from the following to insert the element and terminate the program whenever is need.

(a) jump (b) continue (c) goto (d) break

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

a = 3 b = 4 c = a\*\*b+5 print(c) (a) 17 (b) 86 (c) 14 (d) None of these

**35.** Evaluate the following expression, when a = 10, b = 5 and identify the correct answer.

- 36. Identify the output of following code. List1=[1, 2, 3, 7, 9] L=List1.pop(9) print(L) (a) Syntax error (b) 9 (c) [1, 2, 3, 7] (d) None of these
- **37.** What possible output(s) are expected to be displayed on screen at the time of execution of the program from the following code? import random

```
ar = [2, 3, 4, 5, 6, 7]

minn = random.randint (1, 3)

maxn = random.randint (2, 4)

for i in range (minn, maxn + 1):

print (ar [i], end = '#')

(a) 3# 4# 5# (b) 5# 6# 7# (c) 1# 4# 7#
```

(d) 4# 5# 7#

**38.** What is the output of the following code?

def compute(a,b): if a > b: smaller = b else: smaller = a for i in range (1, smaller+1): if((a%i= = 0) and (b% i ==0)): val = i return val compute(54,24) (a) 216 (b) 108 (c) 6 (d) 3

39. What is the output of the following code snippet?
 def test(a):
 for i in a:
 print(i)
 test((3,4,5,3,7))
 (a) 3
 (b) 3, 4, 5, 3, 7
 (c) 3 4 5 3 7
 (d) None of these
 4
 5
 3
 7

#### **40.** Find the output of following code.

```
def display (num) :
         num.append ([27])
         return (num[1], num[2], num[3])
     list1= [6, 12, 27]
     n1, n2, n3 = display (list1)
     print (list1)
     (a) [6,12,27]
                          (b) [6,12, 27, [27]]
                                                (c) [[27], 6, 12, 27]
                                                                       (d) [6, 12, [27], 27]
41. What will be the output of the following Python code?
     x = ['ab', 'cd']
```

```
for i in x:
    i.upper()
print(x)
(a) ['ab', 'cd']
(c) [None, None]
```

(b) ['AB', 'CD'] (d) None of the mentioned

#### **42.** Suppose the content of file "para.txt" is

Hello...How are you? Hi...I am fine. What are you doing now? Hmm...nothing special.

What will be the output of following code?

```
def count():
    f = open ("para.txt", "r")
    lines = 0
    l = f.readlines()
    for i in 1:
          if i[0] = = 'H':
             lines+=1
    print(lines)
(a) 4
                     (b) 2
```

(d) None of these

#### **43.** Suppose the content of file "para.txt" is

If life were predictable it would cease to be life, and be without flavor.

(c) 3

What will be the output of following code?

file = open("para.txt", "r") a = file.read()b = a.count('life') print(b) file.close() (a) 2 (b) 3 (c) 4 (d) 5

#### **44.** Observe the code and identify the output.

```
X = 5
def func2 ():
    x = 3
    global x
    x = x + 1
```

prim	nt (x)		
prir	nt (x)		
(a) 5	(b) 5	(c) 6	(d) 6
3	4	4	3

**45.** The content of file 'arihant.txt' is as follows:

Welcome to Arihant!

Welcome to your one-step solutions for all your study, practice and assessment needs for various competitive & recruitment examinations and school segment.

What will be the output of following code?

myfile = open('arihant.txt', 'r') s = myfile.read(15) print(s) myfile.close() (a) Welcome to Arihan (b) Welcome to Arih (c) Welcome to Arihant (d) Welcome to Arihant!

**46.** Observe the code given below and find the output, if the content of file "student.txt" is

S01, Rahul Verma, First division S02, Reetesh Deshmukh, First division S03, Aaditya Mishra, Second division S04, Aradhaya Sinha, Third division S05, Manish Sharma, Third division

What will be the output of following code?

f = open('student.txt', 'r') s = f.readlines() lcount = len(s)print(lcount) f.close() (a) 4 (d) 5 (b) 3 (c) 2

**47.** Consider the following directory structure.

	ABC
	Hello
	Mode. png
Identify the root directory.	
(a) Hello	(b) ABC
(c) Mode.png	(d) None of these
Assume the content of text	file "student. txt" is

**48.** *1* 

Sumita Sharma Abhinav Naman Kumar Neha Verma Khushi Sinha

```
What will be the datatype of s?
    file = open("student.txt")
    s = file.readlines()
    file.close()
    (a) list
                        (b) string
                                              (c) tuple
                                                                   (d) dictionary
49. What will be the output of following code?
    sub = "PYTHON"
    for i in sub:
         print(i, ' ', end = " ")
    (a) P
                        (b) PYTHON
                                             (с) РҮТНО М
                                                                   (d) P, Y, T, H, O, N
       Υ
       Т
       Η
       Ο
       Ν
                                Section C
```

(Case Study Based Questions)

This section consists of 6 questions (50 to 55). Attempt any 5 questions.

Shreya write a program to check if elements of a list are same or not, it read from front or back.

a = [1, 2, 3, 3, 2, 1]i = \_\_\_ #line 1 mid = (len (a))/2same = True#line 2 while if a[i] ! = \_\_\_\_\_ : #line 3 print ("No") same = False #line 4 #line 5 if same = = \_\_\_\_ : #line 6 print ("Yes")

**50.** Which value will be assign to variable i in line 1 as marked ? (a) 1 (b) 0 (c) True (d) False **51.** Choose the correct option to fill up the blank in line 2 as marked. (a) i == mid: (b) i > mid: (c) i < mid: (d) i < = mid: **52.** Choose the correct option to fill up the blank in line 3 as marked. (a) a[len(a)] (b) a[len(a) - i] (c) a[len(a) - 1](d) a[len(a) - i - 1]**53.** Choose the correct option to fill up the blank in line 4 as marked. (a) continue (b) label (c) goto (d) break **54.** Choose the correct option to fill up the blank in line 5 as marked. (a) i = i + 1(b) i = i - 1(c) i = i \* i (d) i = i + mid55. What value will be equal to "same" in if condition in line 6 as marked? (a) False (b) True (c) 0 (d) 1

#### Answers

1.	( <i>d</i> )	2.	(c)	3.	(a)	4.	(c)	5.	(c)	6.	(b)	7.	( <i>d</i> )	8.	(a)	9.	(a)	10.	(c)
11.	(b)	12.	(a)	13.	(b)	14.	(c)	15.	(b)	16.	(c)	17.	(c)	18.	(d)	19.	(b)	20.	( <i>d</i> )
21.	(b)	22.	(d)	23.	(b)	24.	(b)	25.	(b)	26.	(b)	27.	(a)	28.	(c)	29.	(b)	30.	(c)
31.	(c)	32.	( <i>d</i> )	33.	(d)	34.	(b)	35.	(c)	36.	(a)	37.	(a)	38.	(c)	39.	(a)	40.	(b)
41.	(a)	42.	(c)	43.	(a)	44.	(d)	45.	(b)	46.	( <i>d</i> )	47.	(b)	48.	(a)	49.	(c)	50.	(b)
51.	(c)	52.	( <i>d</i> )	53.	( <i>d</i> )	54.	(a)	55.	(b)										

### SOLUTIONS

- **1.** Identation is a logical instructions, which Python interpreter can read and execute.
- 2. Comments are used to add a remark or a note in the source code that are ignored by interpreter. Single line comments are shown by # symbol.
- **3.** Data type is a term that is used to show the kind of data values or the type of data that is expected to be handled. Numbers data type contains only numeric value in Python.
- **4.** The index should be an integer. Index of 0 refers to first element, 1 refers to second element and so on.
- **5.** count() function is used to calculate total occurrence of given elements of list.
- 6. Tuple is a collection of Python objects separated by commas as (,).e.g. (3, 5, 9, 10)
- 7. Traversing a tuple is a technique to access an individual element of that tuple.
- **8.** \* is a replication operator that can repeat the elements of the tuple.
- **9.** Arguments are used to pass the value of a variable to a function.
- **10.** non-void functions are also known as fruitful functions. These functions are used to create a specific task.
- **11.** A variable declared in a block is local to that block and is known as local variable.
- 12. LEGB stands for Local Enclosed Global Built-in.
- **13.** In binary file, no delimiters are used for line and no translations occur.
- **14.** file.mode attribute is used to return access mode with that file was opened.
- **15.** write() method takes a string and writes it in the file.
- **16.** For readline(), a line is terminated by \n (new line) or EOF (End Of File).

- **17.** Elements of lists are stored in contagious memory location is true regarding lists in Python.
- 18. 1 corresponds to the last index in the list,– 2 represents the second last element and so on.

So, the output for list [-2] is 65 because 65 is second last element of list 1.

- **19.** In Python, a dictionary can have two same values with different keys.
- **20.** The given code will show an error. Because 0 is not a key in given dictionary abc, def and ghi considered as keys to the given dictionary.
- **21.** The values of a dictionary can be accessed using keys but the keys of a dictionary cannot be accessed using values.
- **22.** Since in print statement, str1 is written inside double quotes, so it will simply print str1 directly.
- **23.** Strings are immutable which cannot be changed after creation. So, updation is not possible. Hence, new values cannot be assigned at any index position in a string.
- 24. capitalize() function in string gives the output by converting only the first character of the string into uppercase and rest characters into lowercase. However, upper() function is used to return the whole string into uppercase.
- **25.** len() returns the length of the given string str1, including spaces and considering "" as a single character.
- 26. \* is a replication operator that repeats the elements of the list.If elements of list L are 34, 89, then the output of L\*3 will be three times of that list.i.e. 34, 89, 34, 89, 34, 89.

- 27. "para.txt" is a text file that contains some content. This program will read the data or 15 bytes from starting. This will also include space and special characters.
- **28.** test() is a function, which has some code and this code or statement execute when function test() will be called. a and b are arguments of test() function, so during called the function, it must to give the value of arguments.

When arguments are 12 and 5, then

a = 12, b = 5 s = a + b \*2 = 12 + 5 \*2 = 12 + 10 = 22

**29.** while() loop tests for its ending condition before executing the statements enclosed in the loop body even the first time.

In this code, value of i is 0 and while has condition i<25 that means the value of i will be from 0 to 24. So, this loop will be iterate 25 times.

**30.** while() loop will go from 1 to 14, then value of i is 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.

i	i*2	i<15	
1	1*2=2	2<15	True
2	2*2=4	4<15	True
4	4*2=8	8<15	True
8	8*2=16	16<15	False
Output 1			
2			
4			

- 8
- **31.** : is performed the slice operation. Slicing refers to access a specific portion or a subset of list for some operation while the original list remains unaffected.

Indexing of the list is started from 0, so the value of index 2 is 7 and next index is 5, then values will consider index no. 2 to index no. 4. i.e. 7, 9, 15.

- **32.** Mydata is a text file on which we need to write data "ABC". write() method takes a string and writes it into the file. So, to write the data into text file, the code is File.write("ABC").
- **33.** break statement alters the normal flow of execution as it terminates the current loop and resumes execution of the statement following that loop.
- **34.** \*\*is an exponent operator, which returns first raised to power second.

```
c= a**b+5
= 3**4+5
= 81+5 =86
```

```
35. x = 10^*3//4 + 5//4 + 4 - 10 + 5//6
= 30//4+5//4+4-10+5//6
= 7+5//4+4-10+5//6
= 7+1+4-10+5//6
= 7+1+4-10+0 = 8+4-10+0
= 12-10+0 = 2+0 = 2
```

- **36.** In pop(9), parentheses put index number instead of element. In the given list, maximum index number is 4, then 9 is out of index range.
- **37.** randint() method returns a random. So, it will give syntax error integer value between the two higher and lower limits provided as two parameters. So, the output will in between 3 to 5 because its lower index number and upper index number are 1 and 4, respectively.
- **38.** if 54>24 true, smaller = 24

for loop go from 1 to 24 in which 1, 2, 3, 6 numbers will divide both given numbers a=54 and b=24.

From the factors, 6 is greatest or last value. So, the output is 6.

- **39.** test() is a function in which we pass an argument. for loop will be start from i. i.e. 0(default value of index) to the length of passing argument.
- **40.** append() method in Python adds a single item to the existing list at the end. In given code, list1 is [6, 12, 27] and appending an element ([27]). So, list1 will be [6,12,27,[27]].
- **41.** The function upper() does not modify a string in place, it returns a new string which is not being stored anywhere.
- 42. This program will display the number of lines starting with 'H' in the file "para.txt". It will read the file line by line and check the condition if i[0]= = 'H', when it is true, then variable lines add 1 in its value.
- **43.** This program will display the number of word 'life'. It opens file 'para.txt' and read the data and counts the 'life' word with count() method and assigned its value to b. Then finally print the value of b, i.e. 2.
- **44.** In the given code, the statement succeeding the statement global x informs Python to increment the global variable x.

Hence, the output is 6. i.e. 5 + 1, which is also the value for global x. When x is reassigned with the value 3 the local x hides the global x and hence 3 is printed.

So, final output is 6

- **45.** myfile variable opens the file 'arihant.txt' in read mode and read the data of file word-for-word and store the data upto 15 bytes to variable s. Then finally print the value of s. It also includes the spaces.
- **46.** This program opens a file 'student.txt' in read mode. It reads the file line-by-line with readlines() method and counts the number of lines.
- **47.** The root directory is the first or top-most directory in a hierarchy. In given figure, ABC is the root directory, Hello is sub-directory and Mode.png is a file.
- 48. readlines() method will return a list of strings, each separated by '\n'. So, the data type of s is list.

- **49.** for statement can iterate over the elements of a sequence or string. It is used when you want to traverse all characters of string.
- **50.** The initial value of i will be 0.
- **51.** The correct condition is i < mid: , which will check the value of i less than the value of 'mid' variable.
- **52.** The correct option to fill up the blank in line 3 is a [len(a)-i -1].
- **53.** The correct option to fill up the blank in line 4 is break, which will terminate the execution of if condition.
- **54.** The correct code to fill up the blank in line 5 is i = i + 1, which will increment the value of i by 1.
- 55. if condition will be if (same = = True) :
   When it becomes true, then it will print Yes.