
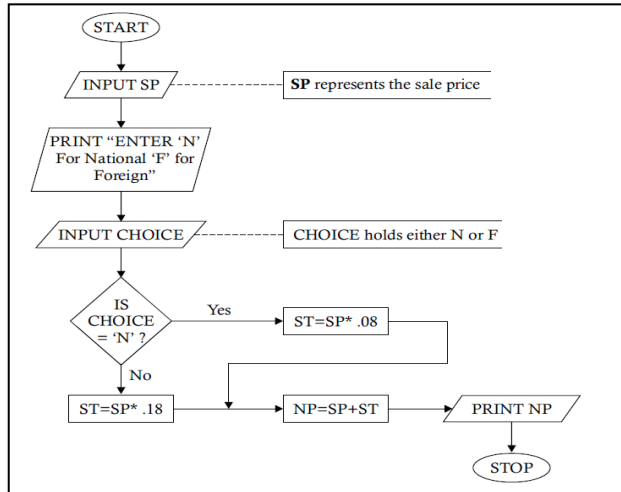


Name:			
Enrolment No:			
UPES End Semester Examination, May 2023			
Course: Python Programming Program: BCA Course Code: CSBC2019 Instructions: Answer the entire question in the sequence given.		Semester: 4 Time : 03 hrs. Max. Marks: 100	
SECTION A			
Q. No.	Question	Marks	CO
1	How many arguments does the output statement of python language print() have? List them with an example.	4	CO1
2	Can you group by characteristics the various exception handlers in Python and provide its functionality.	4	CO4
3	Write in your own words the use of the functions id() and type()?	4	CO1
4	How user-defined exceptions are created in python? Provide an example.	4	CO4
5	Provide the syntax of if else and match structure in python.	4	CO3
SECTION B			
6	Identify the output: <pre> mylist1=[1, 2, [1, 2, 3,['x','y']], ['A', 'B', 'C']] print("1.",mylist1[2][3][1]) print("2.",mylist1[2][-1][-1]) print("3.",mylist1[-2][-1][-1]) mylist2=[11,22,33,44,55,66,77,88,99,111,222,333] print("4.",mylist2[0:]) print("5.",mylist2[3::3]) print("6.",mylist2[2:8]) print("7.",max(mylist2)) list1=[20,30,40,50,60,70,80,90,100] list2=[i for i in list1 if i%2==0] print("8.",list2) print("9.",[(x,y) for x in list1 for y in list2 if x==y]) print("10.",5//6) </pre>	10	CO2
7	“Do Python Support Constructor/Function Overloading”- Justify the statement with suitable examples.	10	CO3

8	Explain the various types of arguments passed with functions in python with suitable examples.	10	CO1
9	<p>Perform the following instructions:</p> <p>a) Create a Vehicle class with max_speed and mileage as instance attributes. Additionally, create a method named seating_capacity() using the below syntax: def seating_capacity(self, capacity): and returns the capacity.(3 Marks)</p> <p>b) Create child class 'Bus' that will inherit all of the variables and methods of the Vehicle class. Set the seating capacity of the bus to 50 using super().(3 Marks)</p> <p>c) Create a Bus object that will inherit all of the variables and methods of the Vehicle class and display it.(2 Marks)</p> <p>d) Define a class attribute "color" with a default value white. I.e., Every Vehicle should be white.(2 Marks)</p>	10	CO3
SECTION-C			
10	<p>Instruction: Answer (10 a and 10 b) OR (10 c and 10 d)</p> <p>a) Design and implement the given task. Input two values from user where the first line contains N, the number of test cases. The next N lines contain the space separated values of a and b. Perform integer division and print a/b. Print the error code in the case of <i>ZeroDivisionError</i> or <i>ValueError</i>.</p> <p>Sample input</p> <p>1 0 2 \$ 3 1</p> <p>Sample Output</p> <p>Error Code: integer division or modulo by zero Error Code: invalid literal for int() with base 10: '\$' 3</p> <p>b) Implement the below given flowchart. Provide the 2 test case and the sample output.</p>	2*10 = 20	CO2



OR

- c) Discuss the need of inheritance and the various types of inheritance supported by python with suitable examples for each.
- d) Develop a Python program to find the maximum and minimum values in a given list of tuples using lambda function.

Original list with tuples:

[('V', 62), ('VI', 68), ('VII', 72), ('VIII', 70), ('IX', 74), ('X', 65)]

Output-

Maximum and minimum values of the said list of tuples:

(74, 62)

11	<p>a) Develop a Python program to:</p> <ol style="list-style-type: none"> 1. read a file. 2. add backslash (\) before every double quote in the file contents. 3. write it to another file in the same folder. 4. print the contents of both the files. <p>For example:</p> <p>If the first file is 'TestFile1.txt' with text as: Jack said, "Hello Pune". The output of the file 'TestFile2.txt' should be: Jack said,\"Hello Pune\".</p> <p>b) Discuss the various file handling functions in python language.</p>	2*10 = 20	CO4
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