Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2021

Course: Python Programming   Semester: I
Program: MCA   Time   : 03 hrs.
Course Code: CSAI 7001   Max. Marks: 100
Instructions: Attempt all questions

<div align="center">SECTION A</div>

S. No.		Marks	CO
Q 1	Differentiate break and continue statements using examples.	4	CO1
| Q2 | Predict the correct output for the code given below-<br><br>```python
class Employee:
    raise_amount = 1.04

    def apply_raise(self):
        self.pay = self.pay * self.raise_amount

    def __init__(self,name,pay):
        self.name = name
        self.pay = pay

emp_1 = Employee('Corey',50000)
emp_2 = Employee('John',40000)
emp_1.raise_amount = 1.03      #statement 1
Employee.raise_amount = 1.02   #statement 2
print(emp_1.raise_amount)      #statement 3
print(emp_2.raise_amount)      #statement 4
```<br><br>A. #statement3 will print 1.02, #statement4 will print 1.03<br>B. #statement3 will print 1.03, #statement4 will print 1.03<br>C. #statement3 will print 1.02, #statement4 will print 1.02<br>D. #statement3 will print 1.03, #statement4 will print 1.02 | 4 | CO2 |
| Q3 | Find the output<br><br>```python
try:
    if '1' != 1:
        raise "someError"
    else:
        print("someError has not occurred")
except "someError":
    print ("someError has occurred")
``` | 4 | CO3 |

Q4	_____ is used to check data dimensionality using pandas library.	**4**	**CO4**
Q5	The expression a{5} will match _____ characters with the previous regular expression. a) 5 or less b) exactly 5 c) 5 or more d) exactly 4	**4**	**CO4**
	SECTION B		
Q 6	a) Write code to exit python using Tkinter module. (5) b) Write the code to place the text at the center of an Entry box in Tkinter (5)	**10**	**CO2**
Q 7	Discuss various types of arguments used in Functions. Write an example for function calls with arbitrary keywords arguments.	**10**	**CO3**
Q 8	a) Write the code to read the text file and then count the lines in the file. b) Consider the file with records of roll no, student name and marks in the order given below: 1 Rahul 23 2 Suraj 45 ... 10 Krishna 61 write a function to print the name of the student with highest marks.	**4+6**	**CO1**
Q 9	Discuss the concept of Inheritance in Python and write a program to show the use of super( ) function.	**10**	**CO1**
	SECTION-C		

Q10	a) Write the use of following directory methods: i)chdir ( ) ii) getcwd iii) rmdir iv) remove ( ) (8)
	b) Write a Python program to: (12)
	       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.
	
	For example:
	
	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\".
		20	**CO2**

| Q11 | Refer the given excel file and perform various operations using pandas library:
a) Read the above excel file in python.
b) How do I write this file to a new file "new.csv"?
c) Include column names in this file. Use 'ticker', 'eps', 'revenue', 'price', 'people' as column names.
d) Fill NAN values using a suitable approach.

OR

1. Convert the numbers=[3,5,6,1] to numpy array.
2. Convert all elements to string type..
3. Print 10 random numbers between 1 to 100 using Numpy.
4. Create an array of complex numbers using Numpy. | 20 | CO4 |