CBCS SCHEME

USN | | | | | | | | | | BPLCK105B

First Semester B.E/B.Tech. Degree Examination, Dec.2024/Jan.2025
Introduction to Python Programming

Time: 3 hrs. Max. Marks:100

Note: *1. Answer any FIVE full questions, choosing ONE full question from each module.*
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
1	a.	Explain basic data types like int, float, double and string with an example.	6	L2	CO1
	b.	Differentiate between local scope and global scope.	6	L2	CO1
	c.	Develop a program to calculate factorial of a number. Program to compute binomial coefficient (Given N and R).	8	L3	CO1
		OR			
2	a.	Define functions. Explain how to pass parameters through the function with return statement.	6	L2	CO1
	b.	What is exception? How exception are handled in python? Write a program to solve divide by zero exception.	6	L2	CO1
	c.	Develop a program to generate Fibonacci sequence of length (N). Read N from the console.	8	L3	CO1
		Module – 2			
3	a.	Explain Augmented short hand assignment operators with an example.	7	L2	CO2
	b.	Explain different type of methods like append( ), Remove( ), sort( ), pop( ) in python programming list.	7	L2	CO2
	c.	Develop a program to find mean, variance and standard deviation.	6	L3	CO3
		OR			
4	a.	Explain set( ) and setdefault( ) method in dictionary.	7	L2	CO2
	b.	Develop a python to print area of rectangle.	6	L3	CO2
	c.	Define pretty printing. How does pretty print work in python with an example.	7	L2	CO2
		Module – 3			
5	a.	Explain useful string functions like : i) Capitalize ii) Count iii) Find iv) Lower v) Upper vi) Replace with an example.	8	L2	CO3
	b.	Develop a python code to determine whether given string is a palindrome or not a palindrome.	6	L3	CO3
	c.	Explain : i) isalpha ii) isalnum iii) isspace( ).	6	L2	CO3

		OR			
6	a.	Explain OS path module with an example.	6	L3	CO2
	b.	Explain the concept of file path. Also discuss absolute and relative file path.	8	L3	CO3
	c.	Program to print of multi clipboard with appropriate message.	6	L3	CO3
		Module – 4			
7	a.	Develop a program to backing up a given folder (folder in a current working directory) into a zip file by using relevant modules and suitable methods.	6	L3	CO4
	b.	List out the difference between shutil.copy( ) and shutil.copythree( ) method.	6	L1	CO4
	c.	Explain the following file operations in pythons with suitable example : i) Copying files and folders ii) Moving files and folders iii) Permanently deleting files and folders.	8	L2	CO4
		OR			
8	a.	Briefly explain assertion and raising a exception.	8	L2	CO4
	b.	List out the benefits of using logging module with an example.	6	L1	CO4
	c.	Write a function named DivExp which takes two parameters a, b and returns a value C(c= a/b). Write suitable assertion for a 70 in function DivExp and raise an exception for when b = 0. Develop a suitable program which reads two values from the console and calls a function DivExp.	6	L3	CO4
		Module – 5			
9	a.	Define a function which takes two objects representing complex numbers and returns a new complex number with a addition of two complex numbers. Define a suitable class 'complex' to represent the complex number. Develop a program to read N(N >= 2) complex numbers and compute the addition of 10 complex numbers.	8	L3	CO5
	b.	Explain the concept of inheritance with an example.	6	L2	CO5
	c.	Explain the _ str _ and the_init_ method with an example.	6	L2	CO5
		OR			
10	a.	Define a class and object, construct the class called rectangle and initialize it with height = 100, width = 200, starting point as (x = 0, y = 0). Write a program to display the centre pint co-ordinates of a rectangle.	8	L3	CO5
	b.	Briefly explain the printing of objects with an example.	6	L2	CO5
	c.	Differentiate operator over loading and operator overriding in python.	6	L2	CO5

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