

CBCS SCHEME

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BPLCK205B

Second Semester B.E./B.Tech. Degree Examination, June/July 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
Q.1	a.	Explain the print(), input() and string concatenation with examples.		06	L2	CO1
	b.	Explain the scope of local and global variables with suitable example.		06	L2	CO1
	c.	Develop a python program to calculate the area and circumference of a circle, input the value of radius and print the result.		08	L3	CO1
OR						
Q.2	a.	Explain the exception handling mechanism in python. Write a program to solve divide by zero exception.		06	L2	CO1
	b.	Define user defined function. How to pass parameters in functions? Explain with an example.		06	L2	CO1
	c.	Develop a program to generate Fibonacci series of length N. Read the value of N from console.		08	L3	CO1
Module – 2						
Q.3	a.	Explain the following methods with example: i) index() ii) append() iii) extend() iv) remove() v) insert() vi) sort()		06	L2	CO2
	b.	Explain the use of “in” and “not in” operators with suitable examples.		06	L2	CO2
	c.	Develop a program to compute and print mean, variance and standard deviation.		08	L3	CO2
OR						
Q.4	a.	Define tuple data type. List the differences between tuple and list.		06	L2	CO2
	b.	Explain the following dictionary methods with suitable example: i) keys() ii) values() iii) items() iv) setdefault()		08	L2	CO2
	c.	Develop a python program to swap two numbers without using intermediate variable.		06	L3	CO2
Module – 3						
Q.5	a.	Explain the following methods with suitable examples: i) upper() ii) isupper() iii) lower() iv) islower.		08	L2	CO3
	b.	Explain the concept of file handling. Also discuss absolute and relative file path.		06	L2	CO3
	c.	Develop a python program to check whether the given string a palindrome or not palindrome.		06	L3	CO3

OR

Q.6	a.	Explain the join() and Split() methods with suitable examples.	06	L2	CO3
	b.	Explain the following methods with examples: i) isalpha() ii) isanum() iii) isSpace()	06	L2	CO3
	c.	Illustrate with an example the process of reading from and writing to a file in python.	08	L3	CO3

Module – 4

Q.7	a.	Explain the following file operations in python with suitable example: i) Copying files and folders ii) Moving files and folders iii) Deleting files and folders	06	L2	CO3
	b.	What are Assertions? Explain the contents of assert statement with examples.	08	L2	CO3
	c.	Illustrate with an example the concept of walking a directory tree.	06	L2	CO1

OR

Q.8	a.	Illustrate the logging levels in python.	06	L2	CO3
	b.	List out the differences between Shutil.copy() and Shutil.copytree() methods.	06	L2	CO3
	c.	Develop a program with a function named DivExp which takes two parameters a and b and returns c ($c = a/b$). Write suitable assertion for $a > 0$ in function DivExp and raise an exception for when $b = 0$. Develop a python program which reads two values from the console and calls a function DivExp.	08	L3	CO3

Module – 5

Q.9	a.	Define classes and objects in python. Construct a class called rectangle and initialize it with height = 100, width = 200, starting point as (x = 0, y = 0) and write the method to display the center point coordinates of a rectangle.	08	L2	CO4
	b.	Explain __init() __ and __str() __ methods with examples.	06	L2	CO4
	c.	Define pure function. Explain the same with an example.	06	L2	CO4

OR

Q.10	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 class 'complex' to represent the complex number. Develop a python program to read N($N \geq 2$) complex numbers and to compute the addition of N complex numbers.	08	L2	CO4
	b.	Explain the printing of objects with an example.	06	L2	CO4
	c.	Explain the concept of inheritance with an example.	06	L2	CO4
