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EAST POINT COLLEGE OF ENGINEERING & TECHNOLOGY
An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi

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EPPLK105B/EPPLK205B

First/Second Semester B.E. Degree Examination, June 2026
INTRODUCTION TO PYTHON PROGRAMMING

TIME:3 hrs. Max.Marks:100

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

		Module-1	M	L	C
Q.1	a	Explain the different data types in Python (Integer, Float, String). Illustrate string concatenation and replication with examples.	8	L2	CO1
	b	Explain Conditional statements in python? Develop a Python program using flow control statements to check whether a number is positive, negative, or zero using Boolean and comparison operators.	8	L3	CO1
	c	Explain variables in Python with example and rules for naming variables.	4	L2	CO1
		OR			
Q.2	a	Explain local and global scope in Python.Describe the use of the global statement with an example	8	L2	CO1
	b	Explain Iterative Statements in python. Develop a program that prints all the even numbers between 1 to 50. Use continue or break statements wherever suitable.	8	L3	CO1
	c	Define Function with its syntax? Illustrate with an Example	4	L2	CO1
		Module–2			
Q.3	a	Explain dictionaries in Python. Discuss dictionary operations, dictionary methods, and aliasing and copying with examples.	8	L2	CO2
	b	A store maintains product details such as product name and price. Develop a Python program to store details using a dictionary, perform add, update, delete operations, and demonstrate aliasing and copying.	8	L3	CO2
	c	Explain tuples in Python. Discuss tuple assignment and tuples as return values with examples.	4	L2	CO2
		OR			
Q.4	a	Explain the key features and operations of Python dictionaries. How are they different from lists? Develop suitable program to illustrate insertion, deletion, and lookup.	8	L2	CO2
	b	Define a list with an Example. Explain how is it different from an array? Develop a Python program to print all the element of a list: nums = [2, 4, 8, 10, 12].	8	L3	CO2
	c	Differentiate between Tuple and List with Example.	4	L2	CO2
		Module–3			
Q.5	a	Describe the process of reading and writing files in Python. Explain different file modes (r, w, a) with suitable examples.	8	L2	CO3

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	b	Develop a program to print 10 most frequently appearing words in a text file. [Hint: Use dictionary with distinct words and their frequency of occurrences. Sort the dictionary in the reverse order of frequency and display dictionary slice of first 10 items]	8	L3	CO3
	c	Develop a Python program to create a file and write 5 lines of text into it.	4	L2	CO3
		OR			
Q.6	a	Explain how strings are manipulated in Python.Discuss the five useful string methods (upper(), lower(), strip(), replace(), split()) with examples.	8	L2	CO3
	b	Develop a program to sort the contents of a text file and write the sorted contents into a separate text file. [Hint: Use string methods strip(), len(), list methods sort(), append(), and file methods open(), readlines(), and write()].	8	L3	CO3
	c	Explain the use of the 'with' statement in file handling with a program.	4	L2	CO3
		Module–4			
Q.7	a	Explain the purpose of shutil module in python. Develop a Python program to copy all files from one directory to another using the shutil module.	8	L3	CO4
	b	Explain the need for exception handling in Python. Develop a program to illustrate: try, except, else, and finally blocks.	8	L3	CO4
	c	Explain the role of "finally" clause with an example.	4	L2	CO4
		OR			
Q.8	a	Explain the purpose of zipfile module in python. Develop a Python program to create a ZIP file and add multiple files into it using the zipfile module.	8	L3	CO4
	b	Write a function named DivExp which takes TWO parameters a, b and returns a value c (c=a/b). Write suitable assertion for a>0 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.	8	L3	CO4
	c	Explain the concept of catching exceptions in Python with examples.	4	L2	CO4
		Module–5			
Q.9	a	Explain object-oriented concepts in Python. Discuss objects are mutable, sameness, and copying with suitable examples.	8	L2	CO5
	b	Develop a Python program to demonstrate the concept of inheritance by creating a base class "Shape" and derived classes such as "Circle" and "Rectangle". Include method overriding and polymorphism.	8	L3	CO5
	c	Explain polymorphism? Develop a python program to demonstrate Runtime polymorphism.	4	L2	CO5
		OR			
Q.10	a	Create a Python class Point with attributes x and y. Demonstrate sameness using 'is' operator, and show the effect of mutability when modifying one reference.	8	L2	CO5
	b	Develop a Python program to create a class "BankAccount" with attributes (account number, balance) and methods for deposit, withdrawal, and displaying balance. Demonstrate object usage.	8	L3	CO5
	c	Explain Inheritance. Demonstrate with an Example.	4	L2	CO5

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