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EPPLK105B/EPPLK205B

First/Second Semester B.E. Degree Examination, July 2025
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	Evaluate the expression 5/3*2 + 4 + (6+2)**2 - 1 step by step, by applying the rules of precedence in python.	6	L2	CO1
	b	Illustrate break and continue statements in python with examples for each.	8	L2	CO1
	c	Develop a program to read the student details like Name, USN and Marks in three subjects. Display the student details, total marks and percentage with suitable messages.	6	L3	CO1
		OR			
Q.2	a	Explain string concatenation and replication concepts with example.	6	L2	CO1
	b	Illustrate the local and global scope variables in python with examples.	8	L2	CO1
	c	Develop a program to generate Fibonacci sequence of length (N). Read N from the console.	6	L3	CO1
		Module–2			
Q.3	a	Explain the usage of get() and setdefault() methods with examples.	6	L2	CO2
	b	Compare tuple and list data type with examples. Identify the function used to convert a list to tuple.	7	L3	CO2
	c	Illustrate indexing, slicing, append(), remove(), sort() functions with respect to lists in python.	7	L2	CO2
		OR			
Q.4	a	Demonstrate the use of for loops with lists and the in and not in operators with examples.	6	L2	CO2
	b	Read a multi-digit number (as chars) from the console. Develop a program to print the frequency of each digit with suitable message.	7	L3	CO2
	c	Explain the dictionary methods get(), item(), keys() and values() in python with examples.	7	L2	CO2
		Module–3			
Q.5	a	Explain Python string handling methods with examples: split(), startswith(), rjust(), center(), lstrip().	6	L2	CO3

	b	Demonstrate the concept of saving variables using the shelve module.	7	L2	CO3
	c	Develop a program to print 10 most frequently appearing words in a text file using dictionary. Sort the dictionary in the reverse order of frequency and display dictionary slice of first 10 items.	7	L3	CO3
		OR			
Q.6	a	Explain the 'isX' string methods with suitable examples.	6	L2	CO3
	b	Explain with suitable python program segments: i) os.path.abspath() ii) os.path.basename() iii) os.path.join()	7	L2	CO3
	c	Utilize the concept of file handling in reading or writing process with suitable python programs.	7	L3	CO3
		Module–4			
Q.7	a	Show the usage of shutil modules in the following file operations in python with appropriate examples Copying, Moving and Renaming files and folders.	6	L2	CO4
	b	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.	8	L3	CO4
	c	Discuss the concept of raising exceptions with examples.	6	L2	CO4
		OR			
Q.8	a	Explain reading, extracting and creating ZIP files with code snippet.	6	L2	CO4
	b	Develop a function named Div Exp that takes TWO parameters a, b and returns a value c (c=a/b), includes an assertion for a>0and raise an exception for when b=0. Write a program which reads two values from the console and calls the Div Exp function.	8	L3	CO4
	c	Explain the logging module and debug the factorial of number program.	6	L2	CO4
		Module–5			
Q.9	a	Explain the concept of encapsulation by implementing a Fraction class program in python.	10	L2	CO5
	b	Build a 'student' class with methods to input marks for three subjects, calculate total marks and percentage, and display the scorecard. Use a list to store the marks and implement an __init__ method for initialization, getmarks() for input, and display() for scorecard.	10	L3	CO5
		OR			
Q.10	a	Explain class, object, attributes and methods with examples.	10	L2	CO5
	b	Apply polymorphism in designing a program to manipulate geometric shapes such as Circle, Square, and Triangle in a graphical environment, ensuring that these classes share a common set of methods. Write the program to demonstrate how polymorphism can be implemented in this context.	10	L3	CO5

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