QP Code: RM22BTECH149 | Reg. No | | | | | | | | | | | AY 22

GIET UNIVERSITY, GUNUPUR – 765022

B. Tech (Fourth Semester - Regular) Examinations, May – 2024

22BCSES24001 – Fundamentals of Python Programming

(CSE)

Time: 3 hrs | Maximum: 70 Marks

(The figures in the right-hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

	Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a.	Write a function that capitalizes the 1st and 4th letters of a string.	CO2	K1
b.	What will be the output of the following code ? tp1=(10,20,30,40,50) tp1.pop(50) print(tp1)	CO1	K2
c.	Write a program to print even-length words in a sentence.	CO2	K2
d.	Write a program to copy the contents of "source.txt" into a file "target.txt".	CO3	K2
e.	How does del operation work on dictionaries? Give an example.	CO2	K1

PART – B **(15 x 4 = 60 Marks)**

	Answer ***ANY FIVE*** the questions	Marks	CO #	Blooms Level
2. a.	Explain **tuple** and **dict** data types and their operations with an example.	7	CO1	K1
b.	Explain the following type castings with an example: int(), float(), complex(), str(), bool()	8	CO1	K1
	(OR)			
c.	Elaborate on all the features of Python programming.	7	CO1	K1
d.	List and explain mathematical and membership operations in set data type.	8	CO1	K1
3.a.	What is a Dictionary? How it is different from the list? Write a program to count the number of occurrences of a character in a string.	8	CO2	K1
b.	Write a user-defined function to find the sum of the digits of a number.	7	CO2	K2
	(OR)			
c.	Write a program to test whether a number is perfect or not, by using a function.	8	CO2	K1
d.	Write a program to generate the shape given below: A ABA ABCBA ABCDCBA	7	CO2	K2
4.a.	Define “ZeroDivisionError” in the outer try and “TypeError” in the inner try block with an example.	7	CO3	K2
b.	Write a program to create an empty list and input a group of numbers into the list, remove the duplicate elements from it and then sort them in ascending order and then display.	8	CO3	K2
	(OR)			
c.	Write a program to enter a paragraph into a file. Find how many palindromes exist within the file and then display them.	7	CO3	K2

d.	Write a program to create a class for a product having member data: product_no, product_name, cost, quantity, total_ amount, and member functions: input(), calculate(), display(). calculate() is used to find total_amount=cost*quantity. Input 5 product details and display the product whose total cost is the highest.	8	CO3	K2
5.a.	Write a program to connect Python to MySQL database and perform the following operations: ➔ show the list of tables that exist ➔ open a table and display all the records	7	CO4	K2
b.	What is the need of lock in multithreading? Explain the concept of **synchronization** with a suitable example.	8	CO4	K2
	(OR)			
c.	Write a program to perform the following: - Create a database "**DB4"** - Create a table **"Student"** within the database having 3 fields (roll number, name, branch). - Describe the table	7	CO4	K2
d.	Write a program to create a thread by using all possible methods - Using the threading module: - Subclassing the Thread class: - Using a target function	8	CO4	K2

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