Total no. of Pages: ....   Roll no. ....

Degree: B.Tech   Semester: II
END-SEMESTER EXAMINATION, APRIL-MAY, 2024

Course Title: COMPUTER PROGRAMING
Course Code: FCCS0102

Duration: 03 Hours   Max.Marks: 50

Note: - Attempt all questions. Missing data/information (if any), maybe suitably assumed & mentioned in the answer.

Q. No.	Question	Marks	CO
Q 1	Attempt any 2 parts of the following		
1a	Explain the difference between a set and a tuple. Write a program to create a set consisting of names of students. Search if a particular name entered by the user is present in the set or not. Display appropriate messages.	5	CO1
1b	Write a program to find largest of 4 integers using if-else.	5	CO1
1c	Write a function to check if duplicate values exist in a dictionary. If yes, display all the duplicate values.	5	CO1
Q 2	Attempt any 2 parts of the following		
2a	What is inheritance? Explain method overriding with the help of an example.	5	CO2
2b	What is the significance of 'self' parameter in the __init__() function. Can we define a class without __init()__ function. Justify your answer with suitable example.	5	CO2
2c	Define a class 'Shop' that stores information about products in the shop. Create object of the class to call the methods of the class. The class should contain the following data members. • name- Name of the Product • selPrice-Selling price of the product • costPrice- Cost price of the Product The class should support the following methods. • _init_() for initializing data members. • Profit() which calculates the profit • Display() to display the selling price, cost price and the profit	5	CO2
Q 3	Attempt any 2 parts of the following		
3a	With the help of regular expression, write a function to find sequences of one upper case letter followed by lower case letters.	5	CO3
	Find the sum of the first half of both the arrays and product of the second half of both the arrays.		CO3
3c	Using Pandas library, create the following dataframe: ``` Name Age Marks A Hina 23 72 B Tina 20 87 C Mina 19 45 D Lina 16 90 ``` Display the details at index value B and C.	5	CO3
Q 4	Attempt any 2 parts of the following		
4a	Write a program to read the content from a text file "Hello.txt". Count the total number of words in the file and display each word on a separate line. Example: If the file contains the following content: This room is big. We are going there. The expected output: Total number of words: 8 This room is big we are going there	5	CO4
4b	What is the difference between 'w' , 'a' and 'x' modes in file handling.	5	CO4
4c	Why exception handling is necessary. Write a program to demonstrate the use of multiple 'try' blocks in a single program?	5	CO4
Q 5	Attempt any 2 parts of the following		
5a	Write short notes on: (i) Input tag with all its attributes (ii) Difference between 'get' and 'post'	5	CO5
5b	Write a program to create a bar graph using matplotlib library for the following data: No. of students: 56, 78, 65,48 Average Marks: 60, 70, 80, 90 Label the axis as given.	5	CO5
5c	Create HTML form for a Grocery store that sells two items A and B. The data entry operator needs to enter the following fields: Customer Name, Cost of Item A, Cost of Item B. Additionally, the form should have a submit button named "Generate Invoice". Once the Data Entry Operator clicks the "Generate Invoice" button, the invoice should be generated on the screen as follows (using flask): The amount of item A is Rs. 2000 The amount of item B is Rs. 3000 The total amount is Rs. 5000 Retrieve HTML form data using Flask by showing appropriate URL routing.	5	CO5

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