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Course Code: MCA-106

Course Name: Python Programming

Assignment 2
(Based on Unit-III)

| No. | Question | CO | BTL |
|------|---|-----|-------|
| Q 1. | Illustrate the concept of Data Hiding with the help of an example. | CO1 | BTL 2 |
| Q 2. | Compare and contrast between constructor and destructor. | CO1 | BTL 2 |
| Q 3. | Define a class Bank that keeps track of bank customer. The class should contain the following data members: name, acNo, type, balance, interest. The class should support the following methods: 1. <code>__init__</code> for initializing the data members 2. <code>deposit</code> for depositing money in the account 3. <code>withdrawal</code> for withdrawing money from the account 4. <code>findInterest</code> that determine the interest on the basis of amount in the account ($\geq 5,00,000$: 8%, $\geq 3,00,000$ and $< 5,00,000$; 7%, $\geq 1,00,000$ and $< 3,00,000$: 5%, $< 1,00,000$: 3) 5. <code>__str__</code> that displays information about bank customer | CO4 | BTL 4 |
| Q4. | Write a class Point having x and y coordinates as data members. Write another class LineSegment that derives the class Point. Also, list appropriate methods. | CO4 | BTL 4 |
| Q5. | Explain Synchronization using locks and Semaphores. | CO1 | BTL 2 |
| Q6. | Write a Python program to extract characters from a given text files and puts them into a list. Print the list. | CO4 | BTL 4 |

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| Q7. | Write a function that reads a file and copies only alternative lines to another file. Alternative lines copied should be the odd numbers lines. Handle all exceptions that can be raised. | CO4 | BTL 4 |
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