BCS-094

CERTIFICATE IN MOBILE APPLICATION DEVELOPMENT (CMAD)

Term-End Examination

June, 2023

BCS-094 : PROGRAMMING USING PYTHON

Time : 3 Hours   *Maximum Marks : 75*

Note : *Questions no. 1 is compulsory. Attempt any* ***three*** *questions from the rest.*

1. (a) Discuss the usage of Break, Continue and Pass statements in Python, with suitable example code for each. 6

   (b) What are Lambda functions ? Write Lambda function to print the maximum of two numbers. Also, write the program to print the maximum of two numbers, without using Lambda functions. 6

(c) Differentiate between mutable and immutable data types in Python. List mutable and immutable data types separately. Briefly discuss *one* mutable and *one* immutable data type.   6

(d) What are programming language translators ? Compare the types of programming language translators.   6

(e) Briefly discuss the Syntax errors and Runtime errors, give suitable example of each.   6

2. (a) Briefly discuss the phases of writing a computer program. Compare the interactive mode and script mode of writing a Python Program, give example of each mode.   7

(b) What is Debugging ? Differentiate between bdb and pdb modules for debugging. Write suitable code in python to illustrate the working of both bdb and pdb modules.   8

3. (a) What is software testing ? Briefly discuss the various types of testing performed during software development. 8

   (b) Write a python code to create a database file and a table name "work-details" with three columns "work–ID", "work-name" and "work-status". Support your code with suitable comments. 7

4. (a) Write steps to prepare the Kivy environment for application development.

   8

   (b) Write short notes on the following : 7

      (i) SQLCRUD statements

      (ii) Integrity constraints and its types

5. (a) What is WxPython ? Create a GUI using WxPython that displays "You are welcome" message in the window. Support your code with suitable comments. 7

   (b) Differentiate between the following : 8

      (i) Alpha testing and Beta testing

      (ii) Acceptance testing and Installation testing

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