**BCS–094**

# CERTIFICATE IN MOBILE APPLICATION DEVELOPMENT (CMAD)

## Term-End Examination

## December, 2024

**BCS–094 : PROGRAMMING USING PYTHON**

*Time : 3 Hours*      *Maximum Marks : 75*

***Note :*** *Question No. 1 is compulsory. Answer any* ***three*** *questions from the rest.*

1. (a) Differentiate between widgets and layouts ? Briefly discuss Grid layout, Anchor layout, Stock layout and Relative layout. 6

   (b) Write SQL CRUD statements with example for each in Python. 6

   (c) Define debugging. Briefly discuss any *two* debugging modules of Python. 6

(d) Explain the concept of overloading with suitable example code in Python.          6

(e) What are 'language translators ? Briefly discuss the types of language translators. 6

2. (a) What is WxPython ? What is the role of WxObject class and control module in GUI application development ? List the various modules and respective submodules in WxPython.                                      10

(b) Briefly discuss the utility of Kivy launcher. How does it differ from the Buildozer tool ?

5

3. (a) Draw the block diagram for Kivy Architecture and explain each of its components.                                      10

(b) List the Mobile application development platform and Programming language used for Android and iOS.                       5

4. (a) Draw block diagram to represent the various stages of software development life cycle. Also, explain the various testings performed during the development of any software.                                       10

   (b)  Differentiate between the following :    5

       (i)   Functional and Non-functional testing

       (ii)  Alpha and Beta testing

5.  Write short notes on following with example :

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   (a)  White Box testing

   (b)  Semantic errors

   (c)  Immutable data types

   (d)  _ str _ method

   (e)  HDL (Hardware Description Language)

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