

4/31

**1204E166**

Candidate's Seat No : \_\_\_\_\_

**B.Sc. Sem.-6 Examination**

**CC-309**

**Computer Science**

**(Python Programme)**

**April-2025**

**Time : 2-30 Hours]**

**[Max. Marks : 70**

**Q:1 Write following**

**[14]**

- (a) Explain branching, control structures, and loops (while, for, while..else, for..else) in Python with examples.
- (b) Describe the use of pass, break, continue, and iterators in Python with suitable examples.

**OR**

- (a) Discuss the role of strings and input handling in Python, with examples of string operations.
- (b) Explain the importance of indentation and dynamic typing in Python.

**Q:2 Write following**

**[14]**

- (a) Describe different ways of taking user input in Python and processing it efficiently.
- (b) Explain function scoping, local and global variables in Python with examples.

**OR**

- (a) Describe recursion with an example and compare it with iteration.
- (b) Explain the usage of lambda, apply, filter, map, and reduce in Python.

**Q:3 Write following**

**[14]**

- (a) Discuss the importance of modular programming in Python using functions and modules.
- (b) Explain the range() function and how it is used in loops and iteration.

**OR**

- (a) Compare and contrast Strings, Tuples, Lists, and Dictionaries in Python.

(P.T. 9)

E166-2

- (b) Discuss Black-box and Glass-box testing techniques with real-world examples.

**Q:4 Write following [14]**

- (a) Explain exception handling in Python with try, except, finally, and raise statements.
- (b) Discuss the principles of Object-Oriented Programming (OOP) in Python with examples.

**OR**

- (a) Describe hash tables and their implementation in Python, including collision handling.
- (b) Explain encryption and decryption techniques in Python with examples of classical ciphers.

**Q:5 Attempt any SEVEN [14]**

- 1 The keyword \_\_\_\_\_ is used in Python to exit the current loop prematurely.
- 2 The \_\_\_\_\_ statement is used as a placeholder in Python when no code is to be executed.
- 3 The \_\_\_\_\_ function is used to apply a function to every item in an iterable (e.g., list).
- 4 \_\_\_\_\_ is a Python function used to return a sequence of numbers, often used in loops.
- 5 \_\_\_\_\_ variables are declared outside of all functions and are accessible globally.
- 6 Python supports both \_\_\_\_\_ testing and glass-box testing methods.
- 7 The \_\_\_\_\_ keyword is used to define a function in Python.
- 8 In object-oriented programming, the concept of restricting access to certain parts of an object is called \_\_\_\_\_.
- 9 OOPS stands for \_\_\_\_\_.
- 10 IDE stands for \_\_\_\_\_.
- 11 Tuples in Python are mutable. (True/False)
- 12 Inheritance allows one class to acquire the properties and methods of another class. (True/False)

1204E166-3

Candidate's Seat No : \_\_\_\_\_

**B.Sc. Sem.-6 Examination**  
**CC-309**  
**Computer Science**  
**(Basic Android Programme)**

**Time : 2-30 Hours]**

**April-2025**

**[Max. Marks : 70**

**Q.1 Write the following**

- i) Explain history of Android Mobile Software Development. 07  
ii) Explain Open Handset Alliance with android terminologies. 07

**OR**

- i) Explain Anatomy of Android Applications. 07  
ii) Write steps to build a sample Android application. 07

**Q.2 Write the following**

- i) Explain Android Manifest File with its common settings. 07  
ii) Explain Receiving and Broadcasting Intents. 07

**OR**

- i) What are resources ? List different types of resources with required directory filename and XML tag. 07  
ii) Write a note on Dalvik Virtual Machine. 07

**Q.3 Write the following**

- i) Write difference between view and layout in Android. 07  
ii) Explain drawing and working with animation. 07

**OR**

- i) What is Layout ? Explain Linear Layout in detail. 07  
ii) Explain Relative layout and Grid layout. 07

**Q.4 Write the following**

- i) What is API ? Explain Android telephony APIs 07  
ii) Explain SQLite database with query. 07

**OR**

- i) Explain Android Networking APIs. 07  
ii) Explain how to implement content providers. 07

(P.T.O)

## Q.5. Attempt any seven out of twelve :-

- i) What is Android?  
 a) A Programming Language  
 b) A Web Browser  
 c) An Operating System  
 d) A Graphics Editor
- ii) What is the primary programming language for Android development?  
 a) C++  
 b) Ruby  
 c) Python  
 d) Java
- iii) What is an APK in Android?  
 a) Application Package  
 b) Apple Package  
 c) App Programming Kit  
 d) Android Package
- iv) What is an Intent in Android development?  
 a) A graphical element  
 b) A variable  
 c) A message object to communicate between components  
 d) A database connection
- v) Which of the following is an important component of an Android app?  
 a) Broadcast Receiver  
 b) All  
 c) Activity  
 d) Service
- vi) What is the purpose of the Android Manifest file (AndroidManifest.xml)?  
 a) Stores user preferences  
 b) Contains the app's source code  
 c) Defines the app's structure and permissions  
 d) Stores the app's resources
- vii) Which Android component is responsible for displaying a UI?  
 a) Service  
 b) Broadcast Receiver  
 c) Content Provider  
 d) Activity
- viii) What does ADB stand for in the Android development environment?  
 a) Active Device Blocker  
 b) Application Debug Builder  
 c) Android Debug Bridge  
 d) Android Development Builder
- ix) What is a Fragment in Android?  
 a) A part of a user interface that can be reused in multiple activities  
 b) A type of background service  
 c) A component that handles data storage  
 d) A class for managing permissions
- x) Which method is used to start an activity in Android?  
 a) createActivity()  
 b) launchActivity()  
 c) openActivity()  
 d) startActivity()
- xi) What file format is primarily used to install Android applications?  
 a) .exe  
 b) .zip  
 c) .apk  
 d) .docx
- xii) What is the Android SDK?  
 a) A collection of Android app guidelines  
 b) A software development kit for creating Android apps  
 c) A web-based app store  
 d) A device for running Android apps

\*\*\*\*\*