

GYANMANJARI INNOVATIVE UNIVERSITY

Gyanmanjari Institute of Technology

B.Tech.- End Semester Examination (ESE)- Summer - 2026

Enrollment No.: _____

Date: 26/05/2026

Subject Code: BETCE16330

Semester: 6

Subject Name: Android Development Framework

Total Marks: 100

Time: 10:30AM To 01:30PM

Instructions:

1. Question No. 1 is Compulsory.
2. Make Suitable Assumptions wherever necessary.
3. Figures to the right indicate full marks.

	Marks
Q.1 (a) Describe different types of variables supported by Dart.	05
(b) Explain Stateless widget with real-time example.	05
(c) Describe the layered architecture of Flutter framework.	10
Q.2 (a) Explain widget testing in Flutter.	05
(b) Explain integration testing in Flutter.	05
OR	
(b) Explain cross-platform application development with reference to Flutter.	05
(c) What is a widget tree? Explain its importance in Flutter UI rendering.	10
OR	
(c) Discuss the importance of IDEs like Android Studio or VS Code in Flutter development.	10
Q.3 (a) Explain Row widget with alignment and spacing properties.	05
(b) Explain Column widget and its layout behavior.	05
(c) Compare Stateless and Stateful widgets based on lifecycle and usage.	10
OR	
(a) Explain ListView.builder and its advantages.	05
(b) Explain pagination while loading large datasets in Flutter.	05
(c) Explain REST architecture and HTTP methods used in APIs.	10
Q.4 (a) Explain use cases of SharedPreferences in mobile apps.	05
(b) Explain custom widget creation with example.	05
(c) Describe asynchronous programming used during API calls in Flutter.	10
OR	
(a) Explain the need for third-party packages in Flutter.	05

- (b) Explain how Flutter applications are executed on emulator or real device. 05
- (c) Describe the lifecycle methods of a Stateful widget. 10
- Q.5 (a) Explain how setState() updates the UI in Flutter. 05
- (b) What are animations in Flutter? Explain different animation types. 05
- (c) Explain Provider architecture and its working principle. 10

OR

- (a) Explain unit testing in Flutter. 05
- (b) Explain package management in Flutter using pubspec.yaml. 05
- (c) Explain named routes with syntax and example. 10