

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED– SEMESTER IX- EXAMINATION –WINTER-2023

Subject Code:2698606

Date: 13/12/2023

Subject Name: Flutter Application Development

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

Q.1 (a) Do as Directed 07

1. Dart is the programming language used to write _____.
2. _____ are symbols that perform operations on variables or values.
3. For collecting text input, Flutter provides _____ widgets.
4. _____ is a critical component for controlling animations in Flutter.
5. The _____ widget is commonly used for implementing tabbed navigation.
6. _____ is a widget that allows you to overlay multiple widgets on top of each other.
7. _____ and _____ are used for building widgets based on asynchronous data.

(b) a) What role do project templates play in Flutter development? 04

b) How is the recommended structure for organizing files and folders in a Flutter project determined? 03

Q.2 (a) How are common widgets like Scaffold, AppBar, SafeArea, Container, Text, and Buttons utilized in Flutter? 07

(b) Explain the difference between Stateless and Stateful Widgets in Flutter. 07

OR

(b) How can Flutter be used to write platform-native code, and in what scenarios is this capability beneficial? 07

Q.3 (a) Explain the purpose of the BottomNavigationBar and how it enhances navigation in a Flutter app. 07

(b) a) How asynchronous programming is implemented in Flutter, and why is it important? 04

b) What is the initial step to start working with Flutter? 03

OR

Q.3 (a) a) How do flow control statements influence the execution flow in a Flutter program? 04

b) Describe the concept of Hot Reload in Flutter. 03

(b) Explain the role of Navigator and named navigator routes in Flutter app navigation. 07

- Q.4** (a) Explain the purpose of InkWell and InkResponse widgets in handling ink-related gestures in Flutter. **07**
(b) How can you create scrolling lists in Flutter, and what role does the Card widget play in this context? **07**

OR

- Q.4** (a) Explain the functionality of the Dismissible widget in Flutter and its use in handling swipe gestures. **07**
(b) Explain the use of GridView in Flutter and how it facilitates the creation of a grid of widgets. **07**
- Q.5** (a) How does the Stack widget function in Flutter, and in what scenarios is it useful? **07**
(b) How can CustomScrollView and Slivers be utilized to customize scrolling behavior in Flutter? **07**

OR

- Q.5** (a) How can Flutter be utilized to send HTTP requests, and what role does the HTTP package play? **07**
(b) How can Flutter handle key-value pairs for local data persistence, and what is the significance of shared_preferences? **07**
