MASTER OF SCIENCE (INFO TECH & COM APP)-CS Examination

M.SC. (IT & CA) CS SEMESTER-3 NOVEMBER 2025 (Regular) NOVEMBER - 2025

CS – 13 FLUTTER APP DEVELOPMENT

Faculty Code : 017

Subject Code : 24CS-MSIT-CO-03-01001

Time : 2.30 Hours]   [Total Marks : 70

Instructions: All questions are compulsory.

Q.1 (A) Answer the following: 4

1 The _____ function is a predefined method in Dart.

2 _____ command checks your environment and display status report of your flutter installation.

3 _____ widget does not have a build() method.

4 Flutter apps use _____ programming language for creating an app.

(B) Answer in brief (Any one out of two)   2

1 Explain Dart Programming with Syntax.

2 Explain Dart Libraries.

(C) Answer in detail (Any one out of two)   3

1 Write note on Flutter Layout.

2 Explain loops in Dart Programming.

(D) Write a note on (Any one out of two)   5

1 List out different Flutter Widgets and explain any two with Properties and Methods.

2 Explain Architecture of Flutter with How it works.

Q.2 (A) Answer the following: 4

1 In Flutter, the screens and pages are known as _____.

2 _____ method is used to navigate from one route to another route.

3 To create a Stateless widget, we have to override the _____ method.

4 Grid view widget is used to display items in two dimensional rows and columns[TRUE / FALSE].

(B) Answer in brief (Any one out of two)   2

1 Give difference between stateful widgets and stateless widgets.

2 Briefly Explain Media Query.

(C) Answer in detail (Any out of two)   3

1 Explain SilverAppBar widget with example.

1

2 Write note on debugging UI issues in Flutter.

(D) Write a note on (Any one out of two)
1 Explain How to create Custom Widgets in Flutter.   5
2 Write note on Flexbox with proper example.

Q.3 (A) Answer the following:
1. The entry point of the state management is _____.   4
2. Give Full form of BLoC.
3. _____ are simply library of reusable functionality.
4. Flutter is not declarative(TRUE/FALSE)/

(B) Answer in brief (Any one out of two)
1. Explain Inherited Widgets in Flutter.   2
2. Briefly Explain DevTools.

(C) Answer in detail (Any one out of two)
1 Explain Firebase integration for state management in Flutter.   3
2 Explain ScopedModel and Provider in Flutter.

(D) Write a note on (Any one out of two)
1 Write note on Stream-based state management with RxDart.   5
2 Explain Redux Architecture for Flutter.

Q.4 (A) Answer the following:
1 Give Full form of REST.   4
2 _____packages can be inherited to provide http resources in flutter.
3 The data In SQLite will be save in _____ data type.
4 Give Full form of JSON.

(B) Answer in brief (Any one out of two)
1 Explain RESTful APIs in brief.   2
2 Briefly Explain Hive in Flutter.

(C) Answer in detail (Any one out of two)
1 Explain How to Catch Data in Flutter ?   3
2 Explain use of WebSockets for real time communication in Flutter.

(D) Write a note on (Any one out of two)
1 Explain JSON serialization and deserialization in Flutter.   5
2 Explain Shared preferences and secure storage in Flutter.

Q.5 (A) Answer the following:
1 What is tween animation ?   4
2 List out different Animation Categories in Flutter.
3 _____ plugin is used to access location services of a device.
4 Which package helps to create Mock Dependencies of class during Testing.

(B) Answer In brief (Any one out of two) 2
1   Briefly Explain Motion.
2   Explain Accessibility in Flutter apps.

(C) Answer in detail (Any one out of two) 3
1   Write down steps to integrate camera in Flutter app.
2   Explain Push notification in Flutter using Firebase.

(D) Write a note on (Any one out of two) 5
1   Explain Internationalisation and localization in Flutter.
2   Explain Testing and Debugging in Flutter.