

GUJARAT TECHNOLOGICAL UNIVERSITY**MCA - SEMESTER-V • EXAMINATION – WINTER • 2014****Subject Code: 650003****Date: 03-12-2014****Subject Name: Mobile Computing****Time: 10:30 am - 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.

- Q.1 (a)**
- (i) Write the code example of an AutoCompleteTextView that can help user to type month names from an array. **04**
 - (ii) How can an Android application use the String, Boolean and Integer resources programmatically? Show the use of method only. **03**
- (b)** **07**
- (i) Explain how SQLite database can be created in Android application using the Application Context.
 - (ii) How ContentValues object can be used to insert new data to table?
- Q.2 (a)** **07**
- (i) Why there are less chances of device corruption with Android Applications?
 - (ii) What is the role of hardware abstraction layer(HAL)?
 - (iii) Explain with diagram the Android platform architecture.
- (b)** Write the XML file excerpts for the following. **07**
- (i) Translate animation, taking 7 seconds to move an object up by 100 on y axis.
 - (ii) Transparency change animation, taking 7 seconds to fade from fully transparent to fully opaque.
 - (iii) Rotation animation, taking 7 seconds to make one full clockwise rotation, pivoting from the center of the object.
- OR**
- (b)** **07**
- (i) Explain with example how permission can be granted for shared resources or privileged access?
 - (ii) What is the use of <permission> tag? Where permission can be enforced?
- Q.3 (a)** **07**
- (i) Which types of progress bar does Android SDK provide?
 - (ii) How to set the indicator progress status programmatically?
 - (iii) What line of code need to be written to place indeterminate progress indicator on activity screen?
- (b)** Write a code example that creates context menu for the Chronometer control. Also explain how to handle the ContextMenu clicks in the Activity. **07**
- OR**
- Q.3 (a)** **07**
- (i) Write a code example that reads some data from a website if web address of that data is provided.
 - (ii) Which are the built in useful content providers in Android?

- (b) 07
- (i) How to retrieve the state of the phone and which permission is needed to access basic phone state information?
 - (ii) Which steps are required for a developer to prepare an Android application for publication and distribution?
- Q.4 (a)** For what purpose FrameLayout view is designed? Explain the important FrameLayout View attributes. 07
- (b)** Explain the important callbacks of the Activity class in Android Application. 07
- OR**
- Q.4 (a)** How content can be loaded into a WebView control? Include loading of content from a specific website or render raw HTML. 07
- (b)** 07
- (i) How can an application start activity with startActivity() method with an explicit intent? Explain with line of code.
 - (ii) Explain the line of code that create an intent Filter and register it within Android Manifest file?
 - (iii) How an additional data can be included in Intent?
- Q.5 (a)** Explain the important Android Project Files and Directories. 07
- (b)** What is the purpose of Canvas and Paint object? Which methods should be used to set paint color to red, paint style to STROKE? Also write the code example to draw circle with linear gradient. 07
- OR**
- Q.5 (a)** 07
- (i) What is the use of Run Configurations and Debug configurations?
 - (ii) What lines should be written in Android application to force a new unhandled error?
 - (iii) Which methods are available to add logging support to Android Application?
- (b)** Explain the steps involved in frame by frame animation. 07
