SEMESTER V

Core Paper XII

Core Paper XII : Android Programming

Instructional Hrs. : 75   Sub. Code :   16CSUC512 / 16CAUC512 /16CTUC614

Max. Marks : 100   CIA - 25;   ESE - 75   Credits: 4

Objective: To learn the appropriate tools for Android development and gain experiences in developing applications on mobile platform.

UNIT I   15 Hrs.

Introduction to Android Operating System: Android - Open Handset Alliance - Android Ecosystem - Android versions - Android Activity - Features of Android - Android Architecture - Stack Linux Kernel. Create the First Android Application: Directory Structure. Android User Interface: Understanding the components of a screen.

UNIT II   15 Hrs.

Designing User Interface with View: TextView - Button - A Standard push button - ImageButton - EditText - CheckBox - ToggleButton - RadioButton and RadioGroup - Progress Bar - Autocomplete TextView - Spinner - ListView - GridView - ImageView - ScrollView - Custom Toast Alert - Time and Date Picker. Activity: Introduction - Intent - Intent Filter - Activity Lifecycle - Broadcast Lifecycle –Service.

UNIT III   15 Hrs.

Multimedia: Android System Architecture - Play Audio & Video - Text to Speech. SQLite Database in Android: SQLite Database - SQLite - Creation and Connection of the database - Extracting value from a Cursors - Transactions.

UNIT IV   15 Hrs.

Telephoning and Messaging: SMS Telephony. Location - Based Services: Creating the Project - Getting the maps API Key - Displaying the Map - Navigating to a Specific Location.

JSON: JSON - XML and JSON - Use of JSON - Syntax and rule of JSON - JSON Name/Value pairs - JSON Values - JSON Objects - JSON Arrays - JSON uses JavaScript syntax - Parsing JSON and XML.

TEXT BOOK

Prasanna Kumar Dixit, **Android**, Vikas Publishing House Pvt Ltd, 1st Edition, 2014.

REFERENCE BOOK

Reto Meier, **Professional Android 4 Application Development**, Wiley India Pvt Ltd., 2012.

SEMESTER V

Practical Lab V: Android Programming Lab

Instructional Hrs. : 75   **Sub. Code :**

16CSUCP05/16CAUCP05/16CTUCP06

Max. Marks: 100   **CIA: 40;**   **ESE: 60**   **Credits: 3**

Objective : To create mobile apps using Android

1.   Create an Android Application to demonstrate any five UI components functionality.
2.   Creating Simple Converter Application in Android.
3.   Creating Calculator App in Android using multiple layouts.
4.   Creating Simple Android Camera Application.
5.   Create an Android Application to send SMS and auto detects the value.
6.   Creating Basic List View Demo in Android.
7.   Creating an Audio Player using Media Player when button is clicked the following events has to occur

     (i) Play Song (ii) Pause Song (iii) Stop Song
8.   Create an Android Application using Google map and add markers to your home, College and few other locations.
9.   Create, insert and update records using SQLite.
10. Create a Simple Login Application using JSON data.

SEMESTER V

Practical V: GUIDESIGN LAB

Instructional Hrs: 75   **Sub. Code: 16ITUCP04/11CTUCP04**

Max. Marks: CIA – 40; ESE – 60   **Credits: 3**

Objective: To gain programming skill in GUI.

1. Develop a VB Project to Check User Name & Password Given by User.

2. Develop a VB Project to Add & Remove Items From List Box.

3. Develop a VB Project to Copy all Items in a List Box to Combo Box.

4. Develop a VB Project to Enter and Display Student Information.

5. Develop a VB Project to Scroll Text from Left to Right Using Timer.

6. Develop a VB Project to Mini Calculator Functions.

7. Develop a VB Project to Documents typing using MDI Form.

   Use Employee Information For the Following Projects.

8. Develop a VB Project to Search a Record in MS-ACCESS database using data control.

9. Develop a VB Project to Delete a Record from MS-ACCESS database using data control.

10. Develop a VB Project to Perform following Operations in MS-ACCESS database using DAO. A). Move First Record. B).Move Next Record C).Move Previous Record. D).Move Last Record.

11. Develop a VB Project to Insert a Record in MS-ACCESS database using ADO.

12. Develop a VB Project to modify a record in MS-ACCESS database using ADO