

SARDAR PATEL UNIVERSITY
Programme: MCA
Semester: V
Syllabus with effect from: June 2015

Paper Code: PS05EMCA03	Total Credit: 4
Title Of Paper: Application Development for the Android Platform	

Unit	Description in detail	Weighting (%)
1	<p>Introduction</p> <p>Introduction to the Android platform - history, important characteristics, major advantages and disadvantages</p> <p>Android versions, devices that run Android</p> <p>Android application development environment - The Java programming language, the class libraries, the Dalvik JIT virtual machine, Dalvik executables, Android package (APK) files, Android system architecture</p> <p>Installing and configuring the development tools - the Eclipse IDE, Android Development Tools (ADT) plug-in, Android SDK tools and SDKs, SDK levels, Android Virtual Devices (AVD)</p> <p>The Android application life cycle</p> <p>Key Android concepts – AVDs, activities, views, adaptors, intents, broadcast receivers, services, content providers, layouts and their inflation, different types of resources, notifications, widgets</p> <p>Working with Eclipse</p>	
2	<p>Basics of Android Application Development</p> <p>Creating the first application, anatomy of the project, Using different layouts</p> <p>Using different UI components, Using menus and context menus</p> <p>Handling events, Different types of notifications</p> <p>Developing simple applications, Developing multiple-screen applications</p> <p>Application widgets, live wallpapers, live folders, Configuration and deployment of applications</p>	
3	<p>Activities, Intents, Broadcast Receivers and Adaptors</p> <p>Activities, Intents, Broadcast Receivers,</p> <p>Adaptors, Background services</p>	
4	<p>Content Providers and Database Access</p> <p>Using different types of content providers, Introduction to the SQLite database</p> <p>Creating and managing the SQLite database, Using the database in applications</p> <p>Introduction to file system access and file handling</p>	
5	<p>Multimedia in Android</p> <p>Using images and icons, Using audio, Using video, Accessing the camera,</p> <p>Accessing motion data, Animation</p>	
6	<p>Accessing the Networks</p> <p>Using telephony, Using text messages(SMS), multimedia messages (MMS)</p> <p>Using Bluetooth, Using wireless networks (Wi-Fi)</p> <p>Accessing the World Wide Web, Geolocation (GPS/AGPS), the mapping API and location aware applications</p>	



Basic Text & Reference Books

- Meier Reto : Professional Android 2 Application Development, Wiley Publishing, Inc., 2010
- Conder Shane, Darcey Lauren : Android Wireless Application Development, 2nd Edition, Addison Wesley, 2011
- Documentation of relevant software packages
- Lee Wei-Meng : Beginning Android Application Development, Wiley Publishing, Inc., 2011
- Darwin I. A. : Android Cookbook, O'Reiley Media, Inc., 2012
- Mew K. M. : Android 3.0 Application Development Cookbook, Packt Publishing, 2011

