

Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj
Master of Science (Computer Applications & Information Technology)
Semester: VII

Paper Code: CCCS727		Total Credit : 4 Total Marks : 70 Time : 3 Hrs
Title of Paper: Mobile Computing		
Unit		
	Description	Weighting
I	<p>Introduction To Mobile Apps: Why we Need Mobile Apps, Different Kinds of Mobile Apps, Briefly about Android</p> <p>Introduction Android: History Behind Android Development, What is Android?, Pre-requisites to learn Android, Brief Discussion on Java Programming</p> <p>Android Architecture: Overview of Android Stack, Android Features, Introduction to OS layers</p> <p>Deep Overview in Android Stack: Linux Kernel, Libraries, Android Runtime, Application Framework, Dalvik VM</p> <p>Installing Android Machine: Configuring Android Stack, Creating Eclipse Environment, Integrating Android with Eclipse IDE, Exploring Eclipse IDE</p>	20%
II	<p>Creating First Android Application: Creating Android Project, Debugging Application through DDMS, Setting up environment, AVD Creation, Executing Project on Android Screen</p> <p>Android Components: Activities, Services, Broadcast Receivers, Content Providers</p> <p>Hello World App: Creating your first project, The manifest file, Layout resource, Running your app on Emulator</p> <p>Building UI with Activities: Activities, Views, layouts and Common UI components, Creating UI through code and XML, Activity lifecycle, Intents, Communicating data among Activities</p> <p>Advanced UI: Selection components (GridView, ListView, Spinner), Adapters, Custom Adapters, Complex UI components, Building UI for performance, Menus, Creating custom and compound Views</p>	20%
III	<p>Notifications: Toast, Custom Toast, Dialogs, Status bar Notifications</p> <p>Styles And Themes: Creating and Applying simple Style, Inheriting built-in Style and User defined style, Using Styles as themes</p> <p>Resources and Assets: Android Resource, Using resources in XML and code, Localization, Handling Runtime configuration change</p> <p>Intent, Intent Filters and Broadcast Receivers: Role of filters, Intent-matching rules, Filters in your manifest, Filters in dynamic Broadcast Receivers, Creating Broadcast receiver</p> <p>Receiving System Broadcast: Understanding Broadcast action, category and data, Registering Broadcast receiver through code and through XML, Sending Broadcast</p>	20%
IV	<p>Data Storage: Shared Preferences, Android File System, Internal storage, External storage, SQLite</p> <p>Introducing SQLite: SQLiteOpenHelper and creating a database, Opening and closing a database, Working with cursors Inserts, updates, and deletes</p> <p>Content Providers: Accessing built in content providers, Content provider MIME types, Searching for content, Adding, changing, and removing content, Creating content provider, Working with content files</p> <p>Services: Overview of services in Android, Implementing a Service, Service lifecycle, Inter Process Communication (AIDL Services)</p> <p>Multimedia in Android: Drawing and Working with Animation, Multimedia Supported audio formats, Simple media playback, Supported video formats, Simple video playback</p> <p>Location Based Services and Google Maps: Using Location Based Services, Finding current location and listening for changes in</p>	20%

	location, Proximity alerts Working with Google Maps: Showing google map in an Activity, Map Overlays, Itemized overlays, Geocoder, Displaying route on map	
V	Web Services and WebView: Consuming web services, Receiving HTTP Response (XML, JSON) Parsing JSON and XML, Using We, View Sensors: How Sensors work, Using Orientation and Accelerometer sensors, Best practices for performance WiFi: Monitoring and managing Internet connectivity, Managing active connections, Managing WiFi networks Telephony Services: Making calls, Monitoring data connectivity and activity, Accessing phone properties and status, Controlling the phone, Sending messages Camera: Taking pictures, Media Recorder, Rendering previews Bluetooth: Controlling local Bluetooth device, Discovering and bonding with Bluetooth devices, Managing Bluetooth connections, Communicating with Bluetooth Android Application Deployment: Android Application Deployment on Android Market	20%
Basic Text & Reference Books :-		
1.	Lauren Darcey and Shane Conder, "Android Wireless Application Development", Pearson Education, 2 nd ed. (2011)	
2.	Reto Meier, "Professional Android 2 Application Development", Wiley India Pvt Ltd (2011)	
3.	Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd(2009)	
4.	Sayed Y Hashimi and Satya Komatineni, "Pro Android", Wiley India Pvt Ltd(2009)	

Chapter wise Coverage from Text Book:

Chapters: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 29

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Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	