

The Maharaja Sayajirao University of Baroda Polytechnic Higher Payment Program Diploma in Computer Engineering			ACADEMIC YEAR 2021-2022		
Year	III	MOBILE APPLICATION DEVELOPMENT (CSE3618)	Lecture Hrs per week	4	
Semester	II		Max marks	100	
Pre-requisite: Web designing Concepts, Knowledge of Front and back end Programming					
CO1	Explain the fundamentals of the Android operating system including its architecture, development tools and application lifecycle.				
CO2	Apply Android application components such as activities, content providers and activity lifecycle methods to build functional mobile applications.				
CO3	Use the Android Manifest file effectively to configure application settings and manage app resources and resource hierarchies.				
CO4	Design user interfaces using Android UI elements layouts and WebView to create interactive and user-friendly mobile screens.				
CO5	Develop data-driven Android applications using SQLite databases including creating, updating, deleting, querying data, handling cursors and binding data to the UI.				
BT	1. Remember 2. Understand 3. Application 4. Analysis 5. Evaluation 6. Creation				
COURSE CONTENT/SYLLABUS					
Unit	Unit Name		Hrs	Weightage	CO
Unit-1	Introduction to Android OS: Overview of Android, The Open Handset Alliance, Features of Android, Android Development Framework, Types of Android Applications, Android Development Tools, Android Application Life cycle, Building sample Android application		8	12	CO1
Unit-2	Components of Android Application: Application Context,Activity, Activity Lifecycle, Intents, Intent Filters,Receiving and Broadcasting Intents, Adapters, Services, Content Providers		10	18	CO2
Unit-3	Defining Application using Android Manifest File: Android Manifest File and its common settings, Managing Application resources in a hierarchy, Working with different types of resources		12	20	CO2, CO3
Unit-4	Designing Android User Interfaces: Fundamental Android UI Design, Android View, TextView, EditText, Button, RadioButton, CheckBox, ImageButton, ToggleButton, TimePicker, DatePicker, Spinner, ProgressBar, ImageView, Layouts: FrameLayout, LinearLayout, RelativeLayout,TableLayout,WebView Layout, Measurement Units		12	20	CO4
Unit-5	Developing application with menus and dialog boxes: Menus, Handling User Events, Dialogs, Styles, Themes		10	18	CO5
Unit-6	Developing applications with database: Introduction to Android Databases, SQLite database in Android, Cursors and Content values, Creating a SQLite Database, Creating, updating and deleting database records, Querying SQLite Databases, Closing and Deleting a SQLite Database, Binding Data to the application user Interface.		6	12	CO5
			58	100	
REFERENCE BOOKS:					
1.	“Mobile Computing”,Raj Kamal by Oxford				
2.	“Mobile Computing Technology Applications and service creation” ,Asoke K Telukder, Roopa R Yavagal by TMH				
3.	“Android Wireless Application Development”, 2nd edition, Lauren Darcey and Shane Conder by Pearson Education.				

