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| **DEPARTMENT : Computer Engg.** |
| **DESIGNATION : Lecturer** |
| **TRAINING LOAD: 3(L)-6(P)**  |
| **SUBJECT : MOBILE APPLICATION DEVELOPEMENT** |
| **Duration: 16 weeks**  |  |  |  |
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| **WEEK NO.**  | **THEORY DAY** | **TOPICS COVERED**  | **PRACTICAL WEEK**  | **PRACTICAL DONE** |
| 1 | 1 |  Evolution of Mobile Computing Important terminologies, Mobile computing functions,Mobile computing security issues | 1st | Write a program to demonstrateactivity (Application Life Cycle)  |
| 2 | Mobile computing Devices,Introduction to various Networks: Wired , Wireless , Adhoc,Comparison of wired and wireless  |
| 3 | Various types of wireless communication technologies used in Mobiles,Antennas  |
| 2 | 1 | Basics of Base Station and Medium access control and Mobile station.Architecture of Mobile Computing, 3- Tier Architecture | 2nd | Write a program to demonstratedifferent types of layouts  |
| 2 | Introduction of Presentation ( Tier-1), Application ( Tier -2), Data ( Tier – 3), Evolution of Mobile Computing through telephony  |
| 3 | Introduction and Applications of WLAN, Infrared versus Radio Transmission, Features of WI-FI and WI-MAX |
| 3 | 1 | Introduction and application of Bluetooth,Introduction to GSM , SMS ,GPRS ,  | 3rd | Write a program to implement simple calculator using text view, edit view, option  button and button |
| 2 | Mobile OS Global System for Mobile Communication (GSM).Introduction to GSM Architecture, GSM Entities |
| 3 | Introduction to CDMA,Comparison of FDMA, CDMA and IDMA,Introduction to Short Message Service (SMS) |
| 4 | 1 | Mobile computing over SMS, Strength of SMS, SMS Architecture,Value added services through SMS | 4th | write a program to demonstrate list view. |
| 2 | VAS Examples General Packet Radio Service (GPRS) Introduction to GPRS Packet data Network,Applications for GPRS |
| 3 | Generic Applications, GPRS Specific Applications |
| 5 | 1 | Limitations of GPRS, Features of 3G and 4G Data Service,Mobile Operating Systems |  |  |
| 2 | Evaluation of Mobile Operating System,Manufactures and their Mobile OS- Mobile OS and their features. Linux Kernel based MobileHandset  | Write a program to demonstrate photo gallery  |
| 3 | Rivision Test and Assignement 1 |  |
| 6 | 1 | Introduction to ANDROID, Android Versions, Features of Android, Architecture of Android, Android Market, Android Runtime (Dalvik Virtual Machine)  | 6th | Write a program to demonstrate Date picker and time picker  |
| 2 | Introduction to Android SDK, Android Development Tool (ADT), Installing and configuring Android |
| 3 | Android Virtual Device (AVD), Understanding android Activites |
| 7 | 1 |  Linking activities and indents, Calling built-in applications using intents | 7th | Develop an simple application with context menu and option menu  |
| 2 | Fragments Displaying Notifications, Introduction to User Interface, Views and Viewgroups |
| 3 | Layouts, Display Orientation , Action Bar, Listening for UI Notifications  |
| 8 | 1 | Introduction to various types of Views,Basic Views : Textview, Button, Image Button | 8th | Develop an application to send SMS |
| 2 | EditText, CheckBox, ToggleButton, RadioButton and RadioGroup Views,ProgressBar View |
| 3 | Auto Complete Text View, Introduction to Advanced Views like Time Picker View and Date Picker View  |
| 9 | 1 | List Views, Image View, Menus, Analog and Digital View, Dialog Boxes | 9th | Write a program to view,edit contact  |
| 2 | Introduction to Displaying Pictures & Menus with Views, Image View, Gallery View,ImageSwitcher  |
| 3 | GridView - Creating the Helper Methods,Options Menu, Context Menu  |
| 10 | 1 | SMS,Introduction to Phone, Sending SMS,Receiving SMS, Making phone call  | 10th | Write a program to send e-mail  |
| 2 | Revision test and Assignment -2 |
| 3 | Introduction to Location Based Services and SQLite, Obtaining the Maps API Key,Displaying the Map, Zoom Control  |
| 11 | 1 | Navigating to a specific location,Adding Marker , Geo Coding and reverse Geo coding | 11th  | Write a program to demonstrate a service  |
| 2 | Introduction to Content Provider :Sharing data, view contacts, Delete Contacts ,Add contacts, Modify contacts |
| 3 | Introduction to Storage, Storing and Retiriving data’s in Internal and External Storage |
| 12 | 1 | Introduction to SQLite,Creating and accessing databases | 12th  | Write a program to demonstrate web view to display web site  |
| 2 | Introduction to Android services like consuming web services using HTTP |
| 3 | Downloading binary Data, Downloading Text Content |
| 13 | 1 | Accessing Web Service | 13th | Write a program to display map of given location/position using map view  |
| 2 | Revision test and Assignment -3 |
| 3 | Revision |
| 14 | 1 | Revision | 14th | 1. Write a program to demonstrate the application of intent class 2. Write a program to create a text file in a external memory  |
| 2 | Revision |
| 3 | Revision |
| 15 | 1 | Revision | 15th | Write a program to store and fetch data from SQL life database. |
| 2 | Revision |
| 3 | Revision |

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| 16 | 2 | Revision | 16th | Write a program to store and fetch data from SQL life database. |
|  | 3 | Revision |  |  |