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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 demonstrate activity (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 demonstrate different 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 |  |  |