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**MANIPAL INSTITUTE OF TECHNOLOGY**

Manipal University, Manipal

Karnataka -576104

**Course Plan**

**Department : B.Tech (Computer Science & Engineering)**

**Course Name & code : Mobile Application Development(ELECTIVE II)**

**(CSE 447)**

**Semester & branch : VII Semester**

**Name of the faculty : Ms.Anjana.S**

**No of contact hours/week: 4 hrs/week**

**ASSESSMENT PLAN:**

1. **In Semester Assessments - 50 %**

* Written tests : 2 \* 20 Marks
* Surprise quizzes : 5 \* 2 Marks

1. **End Semester Examination - 50 %**

* Written examination of 3 hours duration (Max. Marks: 50 )

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| **Portions for Assignment** | |
| **Assignment no.** | **Topics** |
| **1** | **l-1-l-10** |
| **2** | **L-11-L-20** |
| **3** | **L-21-L-30** |
| **4** | **L-31-L-40** |
| **5** | **L-41-L-48** |
| **Portions for Sessional Test** | |
| **Test no.** | **Topics** |
| **1** | **L-1-L-22** |
| **2** | **L-23-44** |

**Course Plan**

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| **L. No.** | **Topics** |
| **L1** | Mobility Landscape |
| **L2** | Mobile Platforms |
| **L3** | Mobile App Development |
| **L4** | Overview of Android Platform |
| **L5** | Setting up the mobile app development environment along with an emulator |
| **L6** | A case study on Mobile App Development |
| **L7** | App User Interface Designing |
| **L8** | Mobile UI Resources-Layout |
| **L9** | UI elements |
| **L 10** | Drawable |
| **L11** | Menu |
| **L12** | Activity states and life cycle |
| **L 13** | Interaction among Activities |
| **L 14** | Threads |
| **L 15** | Async Task Services |
| **L16** | Notifications,Broadcast Receivers |
| **L 17** | Telephony and SMS APIs |
| **L18** | Native data handling on device File I/O |
| **L19** | Shared Preferences |
| **L 20** | Mobile databases SQLite |
| **L 21** | Enterprise Data Access(via Internet/Intanet) |
| **L 22** | Graphics and Animation |
| **L23** | Custom Views |
| **L 24** | Canvas |
| **L25** | Animation APIs |
| **L 26** | Multimedia-Audio/Vedio Playback and Record |
| **L27** | Location Awareness |
| **L 28** | Native Hardware Access |
| **L29** | Sensors |
| **L 30** | Accelerometers |
| **L31** | Gyroscope |
| **L32** | Working with Images |
| **L33** | Working with Images |
| **L 34** | Working with Camera |
| **L 35** | Working with Camera |
| **L 36** | Adding Support For Location based Services |
| **L 37** | Geocoding |
| **L 38** | Case study on location based services |
| **L 39** | Network Support |
| **L 40** | Adding basic Network support-I |
| **L 41** | Adding basic network support-II |
| **L 42** | Debugging Mobile Apps |
| **L 43** | White box testing |
| **L 44** | Black box testing |
| **L 45** | Junit for Android |
| **L 46** | Robotium,MoneyTalk |
| **L 47** | Versioning,Signing and Packaging Mobile Apps |
| **L 48** | Distributing Apps on Mobile market space |

**References:**

**1.Anubhav Pradhan,Anil V Deshpande,Composing Mobile Apps,Wiley Publishers,2014**

**2.Barry Buad,Android Application Development All in one for Dummies.**

**3.Zigurd Mednieks,Laird Dornin,G.Blake Meike and Masumi Nakamura,Programming Android, O’Reilly Publications.**

**Submitted by: Anjana.S**

**(Signature of the faculty)**

**Date:31-7-2015**

**Approved by:**

**(Signature of HOD)**

**Date:**

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