4/4 B.Tech. FIRST SEMESTER

IT7L3   MOBILE APPLICATION DEVELOPMENT LAB   Credits: 2
(Common to CSE/IT)

Lecture: **Internal assessment: 25 marks**
Lab: 3 periods /week   **Semester end examination: 50 marks**

Objectives:

To provide an insight on

- Applications for current and emerging mobile computing devices, performing tasks at all stages of the software development life-cycle.

- User specifications, device capabilities, networking infrastructure and the development environment.

Outcomes:
Students will be able to:

- Gain the practical knowledge onthe limitations and challenges of working in a mobile and wireless environment as well as the commercial and research opportunities presented by these technologies.

- Create applications by using Android Mobile operating system.

- Apply the different types of application models and/or architectures used to develop mobile software applications.

Exercises

1.Write a J2ME program to show how to change the font size and color.

2.Write a J2ME program which creates the following kind of menu
   1. Cut
   2. Copy
   3. Paste
   4. Delete
   5. Select all
   6. Unselect all
3.Create a J2ME menu which has the following options (Event Handling)
   1. Cut   - can be on / off
   2. Copy   - can be on / off
   3. Past   - can be on / off
   4. Delete   - can be on / off
   5. Select all   - put all 4 options on
   6. Unselect all - put all

4.Create on MIDP application which examine. That a phone number, which a user has entered is in the given format (Input checking).
1. Area code should be one of the following 040,041,050,0400,044.
2. There should 6-8 numbers in telephone number (+ area code).

5.Login to HTTP Server from a J2ME Program. This J2ME sample program shows how to display a simple LOGIN SCREEN on the J2ME phone and how to authenticate to a HTTP server. Many J2ME applications JEMD sample program. Shows how a J2ME application can do authentication to the backend server. Note use Apache Tomcat Server as Web Server and MySQL as Database server.

6.The following should be carried out with respect to the given set of application domains. (Assume that the server is connected to the well maintained database of the given domain. Mobile client is to be connected to the server and fetch the required data value / information)
1. Students marks enquiry
2. Town / city movie enquiry
3. Railway / rod / air (For example PNR) Enquiry / status
4. Sports (say, cricket) update
5. Town / city weather update
6. Public exams (say Intermediate or SSC / Entrance (say EAMCET Results enquiry.

Divide student into batches and suggest them to design database according to their domains and render information according the requests.

7.Write an Android application program that displays Hello world using Terminal.

8.Write an Android application program that displays Hello world using Eclipse.

9.Write an Android application program that accepts a name from the user and displays the hello name to the user in response as output using Eclipse.

10.Write an Android application program that demonstrates the following
1. Linear Layout
2. Relative Layout
3. Table Layout

11.Write an Android application program that converts the temperature in Celsius to Fahrenheit.

Reference Books:

1**.** JAMES KEOGH "The Complete reference of J2ME", McGraw Hill
2. RETO MEIER"Professional Android 2 Application Development" wrox Programmer to Programmer.