Manipal Institute of Technology
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Constituent Institute of Manipal University

V SEMESTER B.TECH (COMPUTER SCIENCE AND ENGINEERING)
END SEMESTER EXAMINATIONS, NOV/DEC 2016
SUBJECT : MOBILE APPLICATION DEVELOPMENT(CSE 4027)
DATE: 1-12-2016

TIME:03 HOURS   MAX.MARKS : 50

Instructions to Candidates:

- Answer **ALL** questions.

- Missing data, if any, may be suitably assumed.

1A. Explain with a neat diagram the physical eco-system of mobility. **3M**

1B. Fast Flight Air Cargo company would like to develop an Android App for customers. **3M**
Customers need to install the app and register with their details. The details to be
filled during registration include email address(mandatory), password(mandatory),
retype password(mandatory), Name(mandatory), Address(mandatory), Gender(mandatory),
Phone number(optional), and an optional alert message notification option. Design
a layout for the registration. After clicking the Register button, check whether all
fields are entered or not. If not, display the error message, otherwise show the
welcome screen.

1C. On a missed call, an application may send auto SMS message. The auto SMS **4M**
message sending is optional. Design a page for settings of auto SMS message. The
settings include a boolean value whether to send Auto SMS or not(true implies to
send, false not to send), a message for auto SMS, a signature for auto SMS and a
button with text "Save Settings". Design a activity for auto SMS settings. Show
all the code. Use Shared Preferences.

2A. There are two activities namely Activity A and Activity B. Activity A provides a **3M**
button for forgot password. On clicking the button, it should take to Activity B.
In Activity B, it will display a text box for user name, a security question, a text
box for security question, two buttons namely Reset Password and Cancel. Assume
security question for user "jack" is "Which floor do you live ?". Assume the answer
is "1". Display in Activity A the message you have successfully reset password
or you have cancelled resetting the password depending on the user's response in
Activity B.

2B. What are Drawables ? Explain any two Drawables with code. 4M

2C. What are the necessory arguments for creating a Notification object in an application ? Explain the steps for linking an action to a Notification. 3M

3A. Explain the various approaches for designing a mobile app. 2M

3B. Assume there are five books with Titles "C Programming", "C++ Programming", "Java Programming", "Android", "Design Patterns" and five images namely C.png, C++.png, Java.png, android.png, designp.png. Develop an Activity which houses two fragments, list of books on first fragment and when user clicks on any title of the book, it shows the corresponding image in second fragment. 4M

3C. Design and develop an app for demonstrating the reading of an accelerometer sensor. 4M

4A. Write a method for reading from a file stored in the external storage. Assume the name of the file as notes.txt. 3M

4B. Explain the following methods of SQLiteDatabase class with example. 4M

   i query

  ii rawQuery

 iii update

 iv delete

4C. Design a user defined view object. The View has to draw an image at the location where touch event occurs on the view. 3M

5A. An app has a single activity with two text boxes, one label and a button. On clicking the button should read the number in the two text boxes, find their sum and display in the label. Write a JUnit test case for this activity. 4M

5B. Explain in detail the steps for using location services in a device. 3M

5C. Explain in detail, the steps to be taken while publishing an app. 3M