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Manipal Institute of Technology **MANIPAL**

Constituent Institute of Manipal University

VII SEMESTER B.TECH (COMPUTER SCIENCE AND ENGINEERING) **END SEMESTER EXAMINATIONS, NOV/DEC 2016** **SUBJECT : MOBILE APPLICATION DEVELOPMENT(CSE 447)** **REVISED CREDIT SYSTEM** **DATE: 28-11-2016**

TIME:03 HOURS

MAX.MARKS : 50

Instructions to Candidates:

- Answer **ANY FIVE FULL** questions.
- Missing data, if any, may be suitably assumed.

- 1A. Explain mobility panorama. 3M
- 1B. Explain Android Software Stack with a neat figure. 3M
- 1C. Explain the different approaches for running a long-running task in Android. 4M
- 2A. Explain string, color, dimension resources along with an example. 3M
- 2B. Assume there are two activities with one, two buttons respectively. On clicking the first button in the first activity should take to second activity. During the transition you need to pass a value with an argument "activityNo" and value 2. On clicking the first button in the second activity, should take back to first activity with success. On clicking the second button in the second activity should take back to first activity with failure. Write all the code and explain. 3M
- 2C. Create an application with two activities. In the first activity place a button with text "Send Notification". On clicking the button, a Notification should be sent with the message "Notification from my app". In the second activity a message "You have clicked on Notification" should be displayed. User on clicking the notification should open the second activity of the application. Show all the code. 4M
- 3A. An image X.png is of size 160x300. The image is displayed on a ImageView control with width 100dp and height 100dp. Determine the width and height of the image in physical distance when viewed on 240 dpi, 200 dpi device. Explain how you can display an image with same physical size on devices of varying screen size and density ? 3M

- 3B. Write a method to read file content as a string from a file in external storage. Assume the name of the file as A.txt. Also, display the absolute File location. 3M
- 3C. An application requires chart to be displayed. The types of charts include bar, pie and scatter. Also boolean value for title on top(true or false), integer for maximum Y-Axis value, integer for unit Y-Axis value. Design a screen for storing the settings for the chart. On clicking a button on the screen should save all the settings. Show all the code. 4M
- 4A. Explain the features of SQLite. Compare SQLite with other Desktop Database systems. 3M
- 4B. Write an application for listing all contacts in an Android Phone using Content Provider. 4M
- 4C. Explain how to check whether a handheld device is connected to a Network ? Also list permissions necessary if any. 3M
- 5A. Explain Tweened animation. What are the different tweened animation possible? Explain with code. 3M
- 5B. Create an application with a text box and two buttons. Text box is used for entering URL of the audio. The first button is used for start playing the audio and other button for stopping. Use in-app playback mechanism. Show all the code. 3M
- 5C. Develop an activity which displays location of the user as Latitude and Longitude when clicked on a button. Show all the code. 4M
- 6A. Explain in general the technique to read the value of any type of sensor with code. 3M
- 6B. An app has a single activity with one text box, one label and a button. On clicking the button should read a string on the text box, find the reverse of the string and display it in the label. Write a JUnit test case for this activity. 4M
- 6C. Explain the role of min SDK version, max SDK version, target SDK version. Explain how to configure them. 3M