



Manipal Institute of Technology

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Constituent Institute of Manipal University

V SEMESTER B.TECH COMPUTER SCIENCE & ENGG.
MAKEUP EXAMINATIONS, DEC 2017
SUBJECT : MOBILE APPLICATION DEVELOPMENT(CSE 4027)
REVISED CREDIT SYSTEM
DATE: 27-12-2017

TIME:03 HOURS

MAX.MARKS : 50

Instructions to Candidates:

- Answer **ALL** questions.
- All the code has to be written.
- Missing data, if any, may be suitably assumed.

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| 1A. Explain Mobility Panorama. | 4M |
| 1B. Draw the Activity Life cycle and explain all the lifecycle methods. | 3M |
| 1C. An Application requires users to register through the app. During registration, it is necessary to collect user's First Name, Last Name, Address, Gender, Date of birth, email Id and Phone Number. Design a User Interface. Use a choice box for Gender. Place a Register button at the bottom. On clicking verify whether all details have been filled. If not, display an error message. | 3M |
| 2A. Explain the differences between options menu and context menu. Write an App which has options menus. Show all the code. | 4M |
| 2B. Time consuming operations should not be part of main thread(UI thread). Is it right ? Justify your answer. If yes, what are the turnaround ? Mention any three. | 3M |
| 2C. Explain two approaches for making a telephone call in Android. Explain the permissions to be set in each type. Explain with an example for each. | 3M |
| 3A. Explain how a developer can decide target platform version for an App which he/she is planning to develop. | 2M |
| 3B. Explain the types of Services in Android. Explain the Service lifecycle of each type of Service. | 4M |
| 3C. Develop an App with a custom broadcast receiver. On receiving the custom broadcast, the receiver should display a toast message "Received custom broadcast". Write all the Java code and manifest file entry. | 4M |

- 4A.** List and explain different units of measurement in android. **2M**
- 4B.** Assume there is a table named Students in a database named college.db. The table has two columns namely "Regn No", "StudentName". Write all the Java code for retrieving all Students name from the table and display in a List box. **5M**
- 4C.** Write code for developing an App with a custom view. The view should display a circle with diameter 100 filled with blue colour. Write a text "centroid" at the center of the circle with black colour. **3M**
- 5A.** Design an Android App, which houses a text box and a button. On clicking the button should send a SMS message to 9876543210. The message should be same as that in the text box. Show all the code. **4M**
- 5B.** Write code for reading values from a Accelerometer sensor. **3M**
- 5C.** There is a textbox, a label and a button. The user will enter a string in the textbox and click on the button. On clicking the button the string will be reversed and displayed on the label. Write a Unit test code for verifying the correctness of string reverse function. **3M**