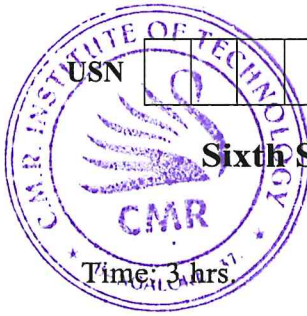**17CS661**

Sixth Semester B.E. Degree Examination, July/August 2022
Mobile Application Development

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. Explain the development process of android with neat diagram. Also explain the importance of manifest and gradle files. **(10 Marks)**

   b. Explain Activity Life Cycle with a neat diagram. Also explain the different callback methods used in activity life cycle with coding snippet. **(10 Marks)**

OR

2 a. List the Android App Components. Explain Activity Component. **(06 Marks)**

   b. What are intents? Explain the types of intents with example. **(06 Marks)**

   c. Explain the process of debugging. Define testing. Explain the types of tests. **(08 Marks)**

Module-2

3 a. Define input control. Explain different types of Button and its states. **(08 Marks)**

   b. How to crate raised button and flat button? **(05 Marks)**

   c. Explain Recycle View Components in detail. **(07 Marks)**

OR

4 a. What is a drawable? Explain several types of drawables. **(06 Marks)**

   b. What is a material design? Explain colors typography, layout, motion, animation with respect to material design. **(08 Marks)**

   c. Define testing. Explain Manual Testing and Automated Testing. **(06 Marks)**

Module-3

5 a. Explain the background processing in Android using AsyncTask and Loader framework with example. **(10 Marks)**

   b. What is a service? Explain the Service Life Cycle of Started Service and Bound Service with neat diagram. **(10 Marks)**

OR

6 a. Explain the two ways of registering / to broadcast receiver. **(06 Marks)**

   b. Define notification. Explain the steps involved in creating and settling notification. **(06 Marks)**

   c. Define Alarms. Explain the two types of alarms and characteristics of alarms. **(08 Marks)**

Module-4

7 a. What are the data storage options? How to create, save, restore and clear shared preferences? Explain with example. **(10 Marks)**

   b. Write short notes on:
      (i) SQL database   (ii) SQLite   (iii) Transactions
      (iv) Query Language   (v) Cursors   **(10 Marks)**

OR

8   a.   What is content provider and content resolver? Explain the application architecture with content provider with the help of diagram.   **(10 Marks)**

     b.   Explain Loader Architecture with neat diagram. Also explain the steps required to implement a cursor loader with example.   **(10 Marks)**

Module-5

9   a.   Explain the various ways to monitor and maximize performance of running app.   **(06 Marks)**

     b.   With an example, explain firebase real-time database and how the data stored in it?
                                                                                        (07 Marks)

     c.   Define permission and explain its types and needs.   **(07 Marks)**

OR

10   a.   What is an APP? What are the things required to do before generating APK in Android Studio?   **(10 Marks)**

     b.   Explain the tasks involved in publishing the app in Google Play Store.   **(10 Marks)**

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