

# CBCS SCHEME

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15CS661

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## Sixth Semester B.E. Degree Examination, June/July 2018 Mobile Application Development

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. What is Android? Discuss why to develop apps for android and list atleast 4 latest android versions with their names and supported API levels. (06 Marks)
- b. Explain with a neat diagram the android development architecture. (06 Marks)
- c. Justify the need for AndroidManifest.xml and write the basic structure for the same. (04 Marks)

OR

- 2 a. Discuss views in android and list the predefined views in android system. (06 Marks)
- b. Elaborate on the resource file in android system (contents of res directory). (06 Marks)
- c. Write Xml program to create an activity with Linear Layout and vertical orientation with the following views/UI elements in it.
  - (i) 2 Text views : One to display login ID and other to display password.
  - (ii) 2 Edit Text : One to accept login ID and other to accept password.
  - (iii) 2 Buttons : One for login with Onclick attribute and other to cancel. (04 Marks)

### Module-2

- 3 a. Define intent. Discuss types of intents and explain in detail how to pass data between activities with intent. (06 Marks)
- b. With neat diagram explain the activity life cycle and life cycle callback methods. (06 Marks)
- c. Demonstrate with an example program how to start an activity for getting results using intents. (04 Marks)

OR

- 4 a. Differentiate between option menu and contextual menu. Explain how to create option menu with necessary call back methods using an example program. (06 Marks)
- b. List and explain the steps involved in creating contextual action bar menu. (06 Marks)
- c. Explain how to share data in your app with social networks and other apps using ShareCompat.IntentBuilder. (04 Marks)

### Module-3

- 5 a. Judge with suitable reasoning why it is important to process some tasks in the background or off the UI thread. (06 Marks)
- b. Discuss the use of AsyncTask to create background processing with necessary call back methods. (06 Marks)
- c. Discuss the limitations of AsyncTask. (04 Marks)

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OR

- 6 a. What are broadcast receivers? Explain how to create broadcast receiver with an example program. (06 Marks)
- b. Describe how to do static and dynamic registration of custom broadcast. (06 Marks)
- c. Distinguish between started services and bounded services. (04 Marks)

**Module-4**

- 7 a. Design and develop a simple app which stores the key-value pair using shared preferences [.xml and .java files has to be written]. (06 Marks)
- b. Explain processing of cursors in SQLiteDB with an example program segment. (06 Marks)
- c. List and explain the call back methods of SQLiteOpenHelper class. (04 Marks)

OR

- 8 a. Explain the relationship between content provider and content resolver with a neat diagram. (06 Marks)
- b. List the components/items required to implement content provider. (06 Marks)
- c. Suggest the required permission in AndroidManifest.xml to make content provider visible and available to other apps. (04 Marks)

**Module-5**

- 9 a. Discuss android permission with example. (06 Marks)
- b. Explain how to monitor the performance of running app. (06 Marks)
- c. Explain how to make app secure user data safely. (04 Marks)

OR

- 10 a. Discuss Google Firebase database and its structure. (06 Marks)
- b. Explain Google firebase push notifications. (06 Marks)
- c. Explain how to generate the signed APK for release. (04 Marks)

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