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15CS661

**Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020**  
**Mobile Application Development**

Max. Marks:80

**Note: Answer FIVE full questions, selecting at least ONE question from each part.**

**Module-1**

- 1 a. What is Android? Explain the components of android stack with a neat diagram. (08 Marks)
- b. Explain the development process of android application with a diagram. Also explain the importance of manifest and gradle files. (08 Marks)
- 2 a. What are intents? Explain the types of intents with examples. (06 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)

**Module-2**

- 3 a. How to create raised button and flat button? Explain. Also mention the three states of each button. (08 Marks)
- b. What is spinner? How to create the spinner and its adapter? Explain with an example. (08 Marks)
- 4 a. What are the steps required for floating context menu? Explain with necessary coding snippet. (08 Marks)
- b. Explain RecyclerView components in detail. (08 Marks)

**Module-3**

- 5 a. What is a service? Explain service life cycle with call back methods. Also compare unbound service and bound service. (08 Marks)
- b. What is notification? How to create and set notification. Explain with an example. (04 Marks)
- c. Explain elapsed real-time alarms and real-time clock alarms. (04 Marks)
- 6 a. Explain the background processing in Android using AsyncTask and Loader frameworks with examples. (10 Marks)
- b. How to create broadcast receivers? Explain the static and dynamic registration of broadcast receivers with examples. (06 Marks)

**Module-4**

- 7 a. How to create, save, restore and clear shared preferences? Explain with an example. (08 Marks)
- b. How to implement on SQLite database? Explain with an example. (08 Marks)
- 8 a. What is a content provider? Explain Application architecture with content provider with the help of diagram. (08 Marks)
- b. Explain the steps required to implement a cursorloader with examples. (08 Marks)

**Module-5**

- 9 a. Explain the different best practices for security. (08 Marks)
- b. What is Firebase? Explain firebase Realtime Database with an example. (08 Marks)
- 10 a. What is an APK? What are the things required to do before generating APK in Andriod studio? (10 Marks)
- b. Explain the different monetization models to make money from your application. (06 Marks)

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