Sixth Semester B.E. Degree Examination, June/July 2024

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. What is Android? Explain Android architecture and its components. (08 Marks)
 - b. Explain development process of android application with neat diagram and also explain the importance of Manifest and Gradle file. (08 Marks)
 - c. What are the challenges faced in app development?

OF

- 2 a. What is an Activity? Explain activity life cycle with a neat diagram. (08 Marks)
 - b. What is an Intent? Explain the types of Intents with example.
 - c. Explain the Model View Presenter (MVP) architecture.

(04 Marks)

(04 Marks)

(08 Marks)

- Module-2
- 3 a. How to create raised and flat button? Explain. Also mention three stages of each button.
 - (08 Marks)

b. List the different of Menus. Explain any two Menus in detail.

(07 Marks)

c. What is Recycler view? Explain its components:

(05 Marks)

OR

4 a. What is drawable? Explain the types of drawables.

(06 Marks)

b. What is spinner? How to create the spinner and its adapter?

- (08 Marks)
- c. What is Material design? Explain colors, Typography, Layout, Motion with respect to Material design. (06 Marks)

Module-3

- 5 a. What is Service? Explain service life cycle with callback methods.
- (06 Marks)

- b. Write a short notes on:
 - i) UI Thread
 - ii) Broadcast Intent
 - iii) Async Task
 - iv) Broadcast Receiver

(10 Marks)

c. Explain elapsed real-time alarms and real time clock alarms.

(04 Marks)

OR

- 6 a. What are Notifications? Explain optional components with notification.
 - b. Explain wireless radio state in transferring data from one device to another.
 - c. How to create broadcast receivers? Explain static and dynamic registration with examples.

(06 Marks)

(08 Marks)

(06 Marks)

Module-4

How to create, save, restore and clear shared preferences? Explain with an example. 7

(08 Marks)

Explain with an example, the implementation of SQLite database.

(08 Marks)

- Write a short notes on:
 - Cursor i)
 - Insert(), delete() update database operation. ii)

(04 Marks)

- Explain content provider with application architecture diagram. (08 Marks)
 - Explain the steps required to implement a Curser loader with examples.

(08 Marks)

- Write a short notes on:
 - i) URI scheme
- ii) MIME type

(04 Marks)

Explain the different best practices for security.

(08 Marks)

Explain four types of monitors that measure the performance of an android app.

(06 Marks) (06 Marks)

What are permissions? Explain its types.

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- What is an APK? What are the things required to do before generating APK in android 10 (10 Marks) studio?
 - Write short notes on:
 - i) **AdMOB**
 - Firebase Realtime Database ii)
 - Fire base Analytics. iii)

(10 Marks)