

Duration: 2 Hours

N.B.: 1. All questions are compulsory.

2. Make suitable assumptions wherever necessary and state the assumptions made.

3. Answers to the same question must be written together.

4. Numbers to the right indicate marks.

5. Draw neat labelled diagrams wherever necessary.

16 M

Q. 1 Answer *ANY FOUR* of the following:

- List and Explain various types of layouts in android.
- Explain the concept of Button and image in android.
- Explain with suitable example the use of RadioButton, and RadioGroup Views in android.
- What is a spinner? Explain with example.
- Explain Architecture of android with a neat diagram.
- List and explain various components of Android.
- What is the purpose of TextView? Explain the following attributes of TextView control: i) id ii) textColor iii) textiv) textStyle
- Write a short note on Activity Lifecycle.

16 M

Q. 2 Answer *ANY FOUR* of the following:

- Write a note on Drawables in android.
- Explain how Themes and Styles can be used to customize user interface design in android application. Give suitable example.
- Write a short note on Broadcast Receiver.
- Write a short note on Notification.
- What is RecyclerView? Give Suitable example.
- Write a short note on AsyncTaskLoader.
- Write a short note on Hierarchical navigation patterns.
- What are the limitations of AsyncTask?

16 M

Q. 3 Answer *ANY FOUR* of the following:

- What are the different option to save application data in android? Explain.
- What are loaders in android? What are its characteristics? Explain.
- Write a note on using SQLite databases for developing android application.
- What is Firebase?List various features of the same.
- State and explain various features of SQLite database.
- Explain ACID properties of transaction.
- As security is important for android devices. What are the best practices to implement security in android?
- Write a short note on Shared Preferences.

12 M

Q. 4 Answer *ANY THREE* of the following:

- How is CheckBox different from RadioButton in Android? Explain with an example
- Explain the use of following controls in two three lines:
i) EditTextview ii) ToggleButton
- Write a short note on Fragment.
- Write a short note on Descendant navigation.
- Write a note on Alarm Manager along with example.
- Explain the purpose of following directories in android.
color/ , drawable/ , layout/ , raw/ , menu/

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