

Duration: 2 1/2 Hrs

Marks:- 75

- Note:- 1) All questions are compulsory.  
2) Figures to the right indicate maximum marks.

**Q.1. Answer any four of the following:****(20M)**

- Write a short note on comments in Kotlin. (CO- 1 R)
- Write a short note on variables in Kotlin. (CO-1 R)
- Write a short note on for loop. (CO-1 R)
- Explain OOPS concept in Kotlin. (CO-1 R)
- Explain the concept of exception handling. (CO-1 U)
- Describe the activity life cycle of android. (CO-1 U)

**Q.2. Write a short note on any four from the following:****(20M)**

- Types of layouts (CO- 2 R)
- Themes v/s styles (CO- 2 R)
- Event Handler (CO-3 R)
- Menu (CO-3 R)
- Android (CO-3 R)
- Firestore Realtime Data (CO-3 R)

**Q.3. Answer any four of the following:****(20M)**

- Write a short note on Drawable class. (CO-5 R)
- Write a short note on audio manager class. (CO-5 R)
- Explain camera class in detail. (CO-5R)
- What is gesture? Explain types of input gesture. (CO-5 R)
- Write a short note on broadcast receiver. (CO-4 R)
- What is Async Task? Explain in detail. (CO-4 R)

**Q.4. Answer any five of the following:****(15M)**

- Write the steps to create app containing "Hello" message. (CO- 2 A)
- Write a short note on android architecture. (CO- 1 R)
- Write a short note on UI. (CO- 2 R)
- Explain recycle view in detail. (CO- 2 R)
- Explain SQLite Database. (CO- 4 R)
- What are the methods of content provider in android? (CO- 4 R)

P.T.O.