

**GUJARAT TECHNOLOGICAL UNIVERSITY****MCA INTEGRATED– SEMESTER VII- EXAMINATION –WINTER-2022****Subject Code: 4470611****Date: 03/01/2023****Subject Name: Mobile Programming****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a) Do as directed: 07**
1. Permission required to access internet is \_\_\_\_\_.
  2. What is notification?
  3. Write the permissions required for Location in android.
  4. Android was developed by \_\_\_\_\_ company.
  5. What is the use of ArrayAdapter class in android?
  6. \_\_\_\_\_ is used to perform long running background tasks in android.
  7. All UI controls are derived from -----class.
- (b) 1. List down the android versions with version no, code name & API Level. 04**
- 2. Explain following terms. (a)DDMS (b) R.java (c) ADB 03**
- Q.2 (a) Discuss the structure and importance of AndroidManifest.xml file. 07**
- (b) Explain Activity Life-Cycle in android by giving a suitable example. 07**
- OR**
- (b) Explain Android Architecture in detail. 07**
- Q.3 (a) What are uses of following widgets and list its important properties and event. 07**
1. ProgressBar 2. SeekBar 3. RatingBar 4. MultiAutoComplete TextView
  5. Chronometer
- (b) What is Android Resource? Explain using example how to define and work with String, Color and Boolean resource. 07**
- OR**
- Q.3 (a) Explain different kind of menus available in the Android. Also explain with example how to set or invoke them within the application. 07**
- (b) What is Intent? List out types of Intent. Also write about Explicit Intent in detail 07**
- by giving a suitable example.**
- Q.4 (a) Discuss about Fragments in detail. 07**
- (b) What is Animation? List out different Animations in android. Explain Tween animation in detail. 07**
- OR**
- Q.4 (a) List built-in layouts. Explain any two layouts in detail with example. 07**
- (b) What is Frame-by-Frame Animation? Explain creating frame-by-frame animation taking suitable example. 07**
- Q.5 (a) Explain Android software stack in detail. 07**
- (b) What are Shared Preferences? Explain with example. 07**
- OR**
- Q.5 (a) What is Content Provider? List out the uses of different built-in content providers and also explain any one of them in detail. 07**
- (b) Discuss the uses of different Android Development Tools. 07**