\*\*Unit I: List and RecyclerView\*\*

1. What is the primary purpose of a RecyclerView in Android?

a) To display a single item

b) To display a scrollable list or grid of items

c) To manage application preferences

d) To play videos

\*\*Answer: b) To display a scrollable list or grid of items\*\*

2. Which component is commonly used for creating custom list views in Android?

a) ListView

b) RecyclerView

c) GridView

d) CardView

\*\*Answer: b) RecyclerView\*\*

3. In Android, what is the purpose of CardView?

a) To create clickable cards for navigation

b) To display a list of items

c) To display a pop-up card with information

d) To provide a material design card-like container for other views

\*\*Answer: d) To provide a material design card-like container for other views\*\*

4. What is the main advantage of using a RecyclerView over a ListView?

a) RecyclerView supports custom item animations.

b) RecyclerView is deprecated in modern Android development.

c) ListView provides better performance.

d) RecyclerView cannot display grid layouts.

\*\*Answer: a) RecyclerView supports custom item animations.\*\*

5. Which layout manager is commonly used to create a grid of items in a RecyclerView?

a) LinearLayoutManager

b) GridLayout

c) GridLayoutManager

d) StaggeredGridLayoutManager

\*\*Answer: c) GridLayoutManager\*\*

\*\*Unit II: Background Processes\*\*

6. Which component is used for performing background tasks that require no user interaction in Android?

a) Activity

b) AsyncTask

c) BroadcastReceiver

d) Service

\*\*Answer: d) Service\*\*

7. What is the primary purpose of an AsyncTask in Android?

a) To perform tasks on the UI thread

b) To perform background tasks and update the UI thread

c) To handle incoming broadcast messages

d) To manage user preferences

\*\*Answer: b) To perform background tasks and update the UI thread\*\*

8. Which component is used to respond to system-wide broadcast events in Android?

a) BroadcastReceiver

b) Service

c) AsyncTask

d) Intent

\*\*Answer: a) BroadcastReceiver\*\*

9. Which of the following components is suitable for long-running tasks that may outlive an Activity's lifecycle?

a) AsyncTask

b) BroadcastReceiver

c) Service

d) Intent

\*\*Answer: c) Service\*\*

10. What does the acronym "UI" stand for in "UI thread"?

a) User Interface

b) Unique Identifier

c) Universal Inheritance

d) Unresolved Issue

\*\*Answer: a) User Interface\*\*

Certainly! Here are more multiple-choice questions (MCQs) on the specified topics:

\*\*Unit II: Background Processes\*\*

16. What is a Bound Service in Android?

a) A service that runs in the background and has no connection to other components

b) A service that binds to a client and allows the client to interact with it

c) A service that can only be started using an Intent

d) A service that is always in the foreground

\*\*Answer: b) A service that binds to a client and allows the client to interact with it\*\*

17. Which of the following statements is true about Unbound Services in Android?

a) Unbound Services can be bound to multiple clients simultaneously.

b) Unbound Services are always in the foreground.

c) Unbound Services cannot communicate with other components.

d) Unbound Services cannot be started by an Intent.

\*\*Answer: a) Unbound Services can be bound to multiple clients simultaneously.\*\*

18. What is the purpose of the JobScheduler in Android?

a) To handle incoming broadcast messages

b) To schedule background tasks to run at specified intervals or conditions

c) To manage foreground services

d) To create custom animations

\*\*Answer: b) To schedule background tasks to run at specified intervals or conditions\*\*

19. When is it appropriate to use a Foreground Service in Android?

a) When a task needs to run in the background without any user awareness

b) When a task needs to run in the foreground and cannot be interrupted

c) When a task needs to run for a long duration and needs to show a notification

d) When a task requires user interaction

\*\*Answer: c) When a task needs to run for a long duration and needs to show a notification\*\*

20. Which of the following components is associated with Background Services in Android?

a) BroadcastReceiver

b) AsyncTask

c) IntentService

d) Spinner

\*\*Answer: c) IntentService\*\*

\*\*Unit II: Asynchronous Tasks\*\*

21. In Android, what is the primary purpose of Asynchronous Tasks?

a) To perform tasks on the UI thread

b) To perform tasks that might block the main thread, such as network requests

c) To handle incoming broadcast messages

d) To manage user preferences

\*\*Answer: b) To perform tasks that might block the main thread, such as network requests\*\*

22. Which class is commonly used to create and execute asynchronous tasks in Android?

a) AsyncTask

b) BroadcastReceiver

c) Service

d) Intent

\*\*Answer: a) AsyncTask\*\*

23. What is the primary advantage of using AsyncTask over running tasks on the UI thread?

a) AsyncTask provides better performance.

b) AsyncTask simplifies code execution for background tasks.

c) AsyncTask guarantees that the UI thread will not be blocked.

d) AsyncTask can be used for long-running tasks without any issues.

\*\*Answer: b) AsyncTask simplifies code execution for background tasks.\*\*

24. In an AsyncTask, which method is used for background execution?

a) onPreExecute()

b) doInBackground()

c) onPostExecute()

d) onProgressUpdate()

\*\*Answer: b) doInBackground()\*\*

25. What is the purpose of the onProgressUpdate() method in an AsyncTask?

a) To perform background tasks

b) To update the UI thread with progress information

c) To handle incoming broadcast messages

d) To manage database operations

\*\*Answer: b) To update the UI thread with progress information\*\*

Certainly! Here are more multiple-choice questions (MCQs) on the specified topics:

\*\*Unit II: Background Processes\*\*

26. What is the primary purpose of a BroadcastReceiver in Android?

a) To perform background tasks

b) To manage user preferences

c) To respond to system-wide broadcast events

d) To create custom animations

\*\*Answer: c) To respond to system-wide broadcast events\*\*

27. Which of the following is NOT a valid use case for using a Service in Android?

a) Playing music in the background

b) Downloading files from the internet

c) Responding to button clicks in an Activity

d) Performing periodic tasks

\*\*Answer: c) Responding to button clicks in an Activity\*\*

28. When should you use a Bound Service in Android?

a) When a service needs to run in the foreground

b) When a service needs to be started by multiple Intents

c) When a service needs to be bound to a client to exchange data

d) When a service needs to run only once

\*\*Answer: c) When a service needs to be bound to a client to exchange data\*\*

29. Which of the following components is responsible for scheduling tasks in the background using JobScheduler?

a) Activity

b) BroadcastReceiver

c) Service

d) JobScheduler itself

\*\*Answer: d) JobScheduler itself\*\*

30. What is the primary purpose of a Background Service in Android?

a) To handle UI interactions

b) To perform long-running tasks in the background

c) To display notifications

d) To manage application preferences

\*\*Answer: b) To perform long-running tasks in the background\*\*

\*\*Unit II: Asynchronous Tasks\*\*

31. In Android, what is the recommended way to perform network requests on a background thread?

a) Using AsyncTask

b) Using the main UI thread

c) Using a BroadcastReceiver

d) Using a Service

\*\*Answer: a) Using AsyncTask\*\*

32. Which method in an AsyncTask is responsible for updating the UI with the results of background processing?

a) doInBackground()

b) onPostExecute()

c) onPreExecute()

d) onProgressUpdate()

\*\*Answer: b) onPostExecute()\*\*

33. What is the purpose of onPostExecute() in an AsyncTask?

a) To perform background tasks

b) To update the UI with results after background processing

c) To initialize background tasks

d) To handle exceptions during background execution

\*\*Answer: b) To update the UI with results after background processing\*\*

34. Which of the following is NOT a benefit of using AsyncTask for background tasks?

a) Simplified execution of background tasks

b) Automatic handling of UI updates

c) Guarantee of running in a separate thread

d) Built-in support for parallel execution of tasks

\*\*Answer: d) Built-in support for parallel execution of tasks\*\*

35. What can be a potential drawback of using AsyncTask for long-running tasks?

a) Limited support for background execution

b) Difficulty in managing UI updates

c) Inability to run multiple tasks in parallel

d) None of the above

\*\*Answer: a) Limited support for background execution\*\*

\*\*Unit III: Delightful User Experience\*\*

36. Which Android resource type is commonly used to store images and icons?

a) Drawables

b) Styles

c) Themes

d) Layouts

\*\*Answer: a) Drawables\*\*

37. What is the primary purpose of Styles and Themes in Android?

a) To define the app's overall visual style

b) To create custom animations

c) To manage database operations

d) To control device orientation

\*\*Answer: a) To define the app's overall visual style\*\*

38. Which component is often associated with the concept of Material Design in Android?

a) CardView

b) Spinner

c) ProgressBar

d) DatePicker

\*\*Answer: a) CardView\*\*

39. What is the role of a Floating Action Button (FAB) in Android?

a) To display static information

b) To provide navigation options

c) To perform a primary action in the current context

d) To show notifications

\*\*Answer: c) To perform a primary action in the current context\*\*

40. Which XML attribute is used to set the background color of a view in Android?

a) textColor

b) backgroundColor

c) backgroundTint

d) android:background

\*\*Answer: d) android:background\*\*