



## Final 2018, questions and answers

Mobile Graphical Interface Programming (Algonquin College)

**CST2235 Graphical Interface Programming**

QuizGlobal.com

Name/ID: \_\_\_\_\_

Number of Questions: 127

**(for each question mark one answer)****1. In what directory are all resource files included?**

- /resouce/raw
- /res
- /res/raw.resource
- /res/raw/resource

**2. In your workplace you are required to support devices running Android 2.0 (before Fragments were introduced). How would you use fragments?**

- You cannot
- Use the java.x class to ensure compatibility
- Add this import: #backwardCompatibility
- Download the Android Support Package and add it to your project

**3. A Button is an example of what?**

- An API
- A button click event
- A table
- A TextView object

**4. The two methods that are usually called in an Activity's onCreate method are**

- onResume and onStart
- super.onCreate and setContentView
- setContentView and onStart
- super.onResume and onResume
- setContentView and onResume

**5. If an Android app needs to do a long-running task as the result of a button press, like file I/O or network access, the programmer could use the following class to do the task in the background:**

- Activity
- AsyncTask
- BackgroundActivity
- SwingWorker
- Intent

**6. An app accesses media content on the Web. What permission must be registered in the application's Android manifest file?**

- INTERNET
- HTTP
- Uri
- parse

**7. What is the equivalent Fragment method to the Activity onCreate method?**

- onCreate
- onCreateFragment
- onCreateView
- onAttach
- None of these answers

**8. What file type is the Android manifest file?**

- XML
- HTML
- CSV
- TXT

**9. The tasks in an Android application are referred to as**

- Intents
- Actions
- Activities
- Services

**10. To display a number of song titles (String type) in a scrolling list, we could use**

- a Fragment with a ListLayout
- a LinearLayout containing a ListLayout
- an Activity and a ListLayout
- a List and an Intent
- a ListView and an ArrayAdapter<String>

**11. You should use the onPause callback to**

- Release system resources, such as broadcast receivers, handles to sensors (like GPS), or any resources that may affect battery life while your activity is paused and the user does not need them
- All of these answers
- Release the Camera resource if in use.
- Commit unsaved changes, but only if users expect such changes to be permanently saved when they leave (such as a draft email).
- Stop animations or other ongoing actions that could consume CPU.

**12. One of the Fragment apps studied in this lab has only one Activity class whereas the other has two Activity classes -- what's the difference in terms of Android Programming**

- <FrameLayout> element in the layout of each of two activities versus <FrameLayout> element in the layout of one activity that can swap Fragments dynamically
- <fragment> element in the layout of each of two activities versus <FrameLayout> element in the layout of one activity that can swap Fragments dynamically
- None of these answers
- <FrameLayout> element in the layout of each of two activities versus <fragment> element in the layout of one activity that can swap Fragments dynamically
- <fragment> element in the layout of each of two activities versus <fragment> element in the layout of one activity that can swap Fragments dynamically

**13. If an Android app needs to do a long-running task as the result of a button press, like file I/O or network access, the programmer could use**

- Intent
- AsyncTask
- BackgroundActivity
- SwingWorker
- Activity

**14. The first of the two parameters of the Log.d method is**

- the logging level of the message
- the name of the log file in which to store the message
- the message to print to the console
- the name of the Activity that should receive the message
- a tag for identifying the message (normally the Activity name)

**15. What is the official Android development environment?**

- Android Studio
- XML Resource Application
- Xcode
- Visual Basic

**16. Which one of the following best describes what allows the developer to pick the emulator for the device and which platform(s) the app will support?**

- API level
- AVD Profile
- Build Tools
- Google APIs

**17. A resource identifier is a unique number that is generated where?**

- In the settings of the Eclipse IDE
- Within the id.java class
- Within the resources.\* package
- Within the R.java class

**18. All Fragment to Fragment communication is done through**

- the associated Activity
- the associated Intent
- None of these answers
- All of these answers
- direct Fragment to Fragment communication

**19. To get the index of a database column named "age" from a Cursor use the following method**

- getAgeIndex()
- getColumnIndexOrThrow("age")
- getCol("age")
- getAge()
- get("age")

**20. The following method call is necessary before we can run a query method that returns a Cursor**

- openDB
- getCursor
- createCursor
- getWritableDatabase
- onCreateCursor

**21. When specifying a layout\_weight value for an element in a horizontal LinearLayout, the \_\_\_\_\_ should have a value of 0dp**

- gravity
- layout\_height
- layout\_gravity
- layout\_width
- layout\_weight

**22. What method would you use to print debugging messages from an Android app?**

- System.out.println
- Log.d
- Log.e
- System.out.print

**23. What is the name of the facility that allows viewing of debugging log messages of an Android app?**

- logger
- logdog
- jlog
- debugger
- logcat

**24. What is not a benefit of using Fragment components?**

- Fragment components make publication and application package management much less cumbersome
- Fragment components simplify testing needs
- Fragment components improve battery life
- Fragment components greatly improve code reuse
- None of these answers

**25. A general rule of Android GUI programming is**

- None of these answers
- Do not use a GridLayout ViewGroup element because they do not support weights
- Do not manipulate the GUI elements from a background thread
- Use pixel values for heights and widths in layouts for increased efficiency
- Go deeper rather than wider when nesting ViewGroup elements

**26. Replacing one Fragment with another Fragment requires an instance of which of the following?**

- FrameSwitcher
- FragmentTransaction
- FragmentCommit
- TransactionFragment
- CommitFragment

**27. Which of the following is true about Fragments?**

- All of these answers
- A Fragment receives its own input events
- A Fragment can be added, removed, or swapped while an Activity is running
- A Fragment can be thought of as a modular section of an activity
- A Fragment has its own lifecycle

**28. In a Java class that encapsulates Android database interaction, we use the following to implement the names of the database, tables, and columns.**

- stack variables
- int positions in a column array
- method calls of the DBHelper class
- String constants
- local variables

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- Fragment components greatly improve code reuse
- Fragment components make publication and application package management much less cumbersome
- Fragment components simplify testing needs

**31. Within the IDE, what does a developer use to load Android applications, test, and debug?**

- An app simulator
- Test programs
- The Android emulator
- AVD configuration

**32. Which of the following method calls will return a FragmentManager object?**

- add
- None of these answers
- commit
- beginTransaction
- getSupportFragmentManager

**33. In which scenarios would an activity possibly be destroyed?**

- All of these answers
- the app is stopped and hasn't been used in a long time
- the activity signals its own destruction by calling finish()
- the user presses the Back button
- the app is stopped and the system needs more resources

**34. What must a Fragment be hosted within?**

- The <uses-configuration> tag
- A View class
- The <uses-sdk> tag
- An Activity class

**35. Why is it important to understand the Activity lifecycle callback methods?**

- so the Activity does what the user expects and does not consume system resources when the activity doesn't need them
- all of these answers
- because the programmer calls them to perform all forms of navigation in an Android app
- because the programmer uses them to know how the user has interacted with the application
- none of these answers

**36. An update or modification to a Fragment is performed using what?**

- A FragmentTransaction
- A FragmentActivity
- A FragmentView
- A FragmentEdit

**37. To get the String value of a column for a database row from a Cursor use the following method**

- getData
- getColumn
- getString
- getValue
- getIndex

**38. If an Activity is vulnerable to being killed by the Android operating system due to low memory the Activity can save state information to a Bundle object using which callback method?**

- isFinishing()
- onStop()
- onSaveInstanceState()
- killProcesses()

**39. With what class file are resources compiled and accessed programatically?**

- Resources.java
- R.java
- XML
- @Android

**40. To publish an app, it must be signed with a digital signature so that**

- only the original developer can make changes to the app
- any developer can make improvements to the app
- only google can make changes to the app
- the data used by the app is secured
- Google can verify the identity of the publisher of the app

**41. A resource identifier is a unique number that is generated where?**

- In the settings of the Eclipse IDE
- Within the R.java class
- Within the resources.\* package
- Within the id.java class

**42. The following method is used to execute an SQL query and return a Cursor**

- getCursor
- query
- delete
- execSQL
- insert

**43. What must a Fragment be hosted within?**

- A View class
- The <uses-sdk> tag
- The <uses-configuration> tag
- An Activity class

**44. A Fragment can be added to an activity in the following way when it is necessary to change the fragment during the life of the activity**

- use a FragmentManager to create a FragmentTransaction
- use a <fragment> element in the Activity layout
- All of these answers
- None of these answers

**45. Each of the Android layout classes has a class called \_\_\_\_\_ which gives the layout parameters appropriate to that layout**

- LayoutElements
- LayoutResources
- LayoutAttrs
- AndroidManifest
- LayoutParams

**46. A general rule of Android GUI programming is**

- Do not perform long running operations on the main GUI thread
- None of these answers
- Use pixel values for heights and widths in layouts for increased efficiency
- Do not use a GridLayout ViewGroup element because they do not support weights
- Go deeper rather than wider when nesting ViewGroup elements

**47. In which state do we say an activity is in when it is partially obscured by another activity -- the other activity that's in the foreground is semi-transparent or doesn't cover the entire screen**

- Stopped
- Paused
- Resumed
- Created
- Started

**48. Which method would be used to store the values of Activity instance variables so that they can be restored when the activity is created again?**

- None of these answers
- onDestroy
- onRestoreInstanceState
- onStop
- onSaveInstanceState

**49. Which callback method is called when the Fragment's user interface becomes visible but is not yet active?**

- onStart()
- onCreateView()
- onPause()
- onResume()

**50. What is the central configuration file for Android applications?**

- /libs/android-support-v4.jar
- AndroidManifest.xml
- /res/layout
- proguard-project.txt

**51. To position a button's text to the left or right inside the button, you would specify the**

- layout\_gravity of the button
- gravity attribute of the text
- layout\_weight of the text
- layout\_gravity of the text
- gravity attribute of the button

**52. What is the official Android development environment?**

- Android Studio
- Xcode
- Visual Basic
- XML Resource Application

**53. When the Activity reaches the top of the Activity stack and becomes the foreground process, what method is called?**

- onRestart()
- onPause()
- onResume()
- onDestroy()

**54. Which method can be called on a Fragment to acquire a FragmentManager?**

- getFragmentManager
- getSupportFragmentManager or getFragmentManager
- getManager
- getActivity
- getActivityManager

**55. When an Activity moves to the top of the Activity stack, the current Activity is informed that it is being pushed down the Activity stack by what method?**

- onResume()
- onStop()
- onPause()
- onReload()

**56. An XML document that contains proper XML syntax can be called**

- SGML
- valid
- proper
- XHTML
- well-formed

**57. What must developers enable on Android devices in order to install their applications?**

- Developer Options
- ADTs
- Certificates
- Emulators

**58. Who retains all rights to Android apps developed with the SDK?**

- Android, Inc.
- Google
- The developer
- Microsoft

**59. A Fragment can be added to an activity in the following way**

- All of these answers
- use a <fragment> element in the Activity layout
- None of these answers
- use a FragmentManager to create a FragmentTransaction

**60. What is gradle?**

- Android emulator
- Android compiler
- Android IDE
- Android debugger
- Android build system

**61. Which of the following attributes is incremented each time the developer publishes a new version of an app?**

- versionName
- None of these answers
- targetSdkVersion
- versionCode
- minSdkVersion

**62. What is the extension of a file containing an app's installation package?**

- war
- apk
- jar
- txt
- ear

**63. The onCreate() method has a single parameter of type**

- Bundle
- Device
- Buffer
- Partition

**64. A developer wants to download and update the development tools while still maintaining backward compatibility. What tool within the IDE will she use?**

- Android Virtual Device Manager
- Android Compatibility Manager
- Android SDK Manager
- Android Time Manager

**65. Implementing your activity lifecycle methods properly ensures your app behaves well in several ways, including that it:**

- Does not crash if the user receives a phone call or switches to another app while using your app.
- Does not consume valuable system resources when the user is not actively using it.
- Does not crash or lose the user's progress when the screen rotates between landscape and portrait orientation.
- All of these answers
- Does not lose the user's progress if they leave your app and return to it at a later time.

**66. When the Activity reaches the top of the Activity stack and becomes the foreground process, what method is called?**

- onDestroy()
- onResume()
- onRestart()
- onPause()

**67. Who owns the copyrights and intellectual property rights to the material in the SDK?**

- Google and third parties
- Android development leads
- It is open source and not under copyright
- The developer

**68. Which type of View can act like an empty box that can contain any Fragment?**

- ViewLayout
- FrameLayout
- FragmentLayout
- FrameView
- FragmentView

**69. Which programming step is necessary for an Activity to send a message to one of its Fragments?**

- the Activity calls a FragmentManager's findFragmentById method
- the Activity calls the Fragment's public methods
- the Activity captures the Fragment instance
- All of these answers
- the Activity calls its getSupportFragmentManager method

**70. Which one of the following attributes is not shared by all ViewGroup subtypes?**

- layout\_gravity
- layout\_height
- layout\_width
- id

**71. The onResume method should be used to**

- none of these answers
- initialize components that are released during onPause
- commit unsaved changes such as a draft email
- release the camera if applicable
- release system resources that may affect battery life

**72. In what state is an Activity able to perform interaction with a user?**

- Paused
- Created
- Started
- Resumed
- Stopped

**73. What determines the layout of a Fragment?**

- None of these answers
- The Fragment's host Activity passes the layout to the Fragment's constructor
- The Manifest lists each Fragment together with its layout
- The Fragment's onCreateView method inflates a layout resource with a LayoutInflater
- The Fragment's host Activity passes the layout to a FragmentManager

**74. With what class file are resources compiled and accessed?**

- XML
- Resources.java
- R.java
- @Android

**75. Which important attribute of the <uses-sdk> tag specifies the highest API level that the Android application supports?**

- The targetSdkVersion attribute
- The maxSdkVersion attribute
- The limitSdkVersion attribute
- The minSdkVersion attribute

**76. What is the basic user interface building block within Android?**

- The Intent class
- The Activity class
- The Seekbar class
- The View class

**77. When an Activity moves to the top of the Activity stack, the current Activity is informed that it is being pushed down the Activity stack by what method?**

- onResume()
- onPause()
- onStop()
- onReload()

**78. In your workplace you are required to support devices running Android 2.0. How would you use fragments?**

- Add this import: #backwardCompatibilty
- Download the Android Support Package and add it to your project
- You cannot.
- Use the java.x class to ensure compatibility

**79. Which XML attribute can you use to set the name of your click method within your Activity class and implement it?**

- ToggleButton
- onClick
- InputFilter
- Tokenizer

**80. Which important attribute of the tag specifies the highest API level that the Android application supports?**

- The minSdkVersion attribute
- The targetSdkVersion attribute
- The limitSdkVersion attribute
- The maxSdkVersion attribute

**81. When specifying a layout\_weight value for an element in a horizontal LinearLayout, the \_\_\_\_\_ should have a value of 0dp**

- layout\_gravity
- layout\_width
- layout\_height
- gravity
- layout\_weight

**82. An update or modification to a Fragment is performed using what?**

- A FragmentEdit
- None of these answers
- A FragmentTransaction
- A FragmentView
- A FragmentActivity

**83. The following method should be called after retrieving a Cursor with multiple rows.**

- isLast
- moveToNext
- activate
- resetCursor
- moveToFirst

**84. The onCreate() method has a single parameter of type**

- Partition
- Device
- Bundle
- Buffer

**85. Which of the following is a App Marketplace for Android apps?**

- Ebay Apps
- Google App Store
- Apple App Store
- Google Pay
- Google Play

**86. An activity never spends significant time in these two states, but transitions through them quickly:**

- Created and Started
- Paused and Started
- Started and Resumed
- Created and Resumed
- Paused and Created

**87. If an Activity is vulnerable to being killed by the Android operation system due to low memory the Activity can save state the information to a Bundle object using which callback method?**

- onStop()
- killProcesses()
- isFinishing()
- onSaveInstanceState()

**88. In what directory are all resource files included?**

- resource/raw
- res/raw.resource
- res
- res/raw/resource

**89. Which of the following is true of a Release Candidate for publishing?**

- Logging is turned on
- All permissions are enabled
- All permissions are disabled
- Debugging is turned on
- Debugging is turned off

**90. A Button is an example of what?**

- A table
- An API
- A button click event
- A TextView object

**91. The two methods that are usually called in an Activity's onCreate method are**

- super.onResume and onResume
- onResume and onStart
- setContentView and onStart
- super.onCreate and setContentView
- setContentView and onResume

**92. What are fragments commonly used for?**

- To hold the code and screen logic for placing the same user interface component in multiple screens
- To avoid app crashes due to memory leaks
- To measure the amount of battery usage
- To allow application components such as activities and services to communicate with one another

**93. Which XML attribute can you use to set the name of your click method within your Activity class and implement it?**

- InputFilter
- ToggleButton
- Tokenizer
- onClick

**94. What type of resource is where many different resources come together to form the definition of an Android application screen?**

- Dimension resource
- Layout XML resource
- Application resource
- Menu resource

**95. Jason has an Android device and rotates the screen. What of the following methods is called?**

- onCreate()
- run()
- setOrientation()
- start()

**96. To display a number of song titles (String type) in a scrolling list, we could use**

- an Activity and a ListLayout
- a ListView and an ArrayAdapter<String>
- a List and an Intent
- a LinearLayout containing a ListLayout
- a Fragment with a ListLayout

**97. What best describes what the LinearLayout control does?**

- Displays each child control in cells within specific rows and columns
- Draws its child controls in a single horizontal row or a single vertical column
- Adjusts the layout vertically when the orientation of the phone is changed
- Justifies the text of its child controls

**98. In the Android Manifest file, the Activity that should be launched when the app starts is specified with**

- an intent-filter element
- an activity-filter element
- a launcher element
- an intent element
- a main element

**99. On the new Android Application screen, the Minimum Required SDK version should be**

- The earliest SDK API level you plan to target.
- The most recent SDK API that you will target.
- Froyo.
- Honeycomb.

**100. What is the basic user interface building block within Android?**

- Intent
- Seekbar
- The View class
- The Activity class

**101. What are four types of layouts built into the Android SDK framework?**

- FrameworkLayout, FixedLayout, GridLayout, MarginalLayout
- GridLayout, SpacedLayout, DrawableLayout, FrameLayout
- LinearLayout, RelativeLayout, FrameLayout, GridLayout
- LinearLayout, DrawableLayout, HorizontalLayout, RelativeLayout

**102. A developer wants to download and update the development tools while still maintaining backward compatibility. What tool within the IDE will she use?**

- Android Virtual Device Manager
- Android SDK Manager
- Android Time Manager
- Android Compatibility Manager

**103. To position a button's text to the left or right inside the button, you would specify the**

- gravity attribute of the button
- layout\_weight of the text
- gravity attribute of the text
- layout\_gravity of the text
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- LinearLayout, DrawableLayout, HorizontalLayout, RelativeLayout
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- FrameworkLayout, FixedLayout, GridLayout, MarginalLayout
- LinearLayout, RelativeLayout, FrameLayout, GridLayout

**105. The tasks in an Android application are referred to as**

- Actions
- Services
- Activities
- Intents

**106. The following type of Fragment displays a number of items in a scrolling list, like a ListView**

- FragmentActivity
- DetailFragment
- ActivityFragment
- ListFragment
- Fragment

**107. What is a scenario in which an activity is stopped and restarted?**

- None of these answers
- The user performs an action in the app that starts a new activity
- All of these answers
- The user receives a phone call while using the app
- The user opens the Recent Apps window and switches to another app

**108. What is the central configuration file for Android applications?**

- /res/layout
- AndroidManifest.xml
- /libs/android-support-v4.jar
- proguard-project.txt

**109. What symbol is used to specify that a class belongs to the package name specified in the manifest?**

- # (hash)
- (hyphen)
- . (period)
- \$ (dollar symbol)

**110. In Android programming, it is best to**

- Manipulate the GUI elements from a background thread
- None of these answers
- Use a GridLayout ViewGroup element when assigning weights to child elements
- Go wider rather than deeper when nesting ViewGroup elements
- Use pixel values for heights and widths in layouts for increased efficiency

**111. An update or modification to a Fragment is performed using what?**

- A FragmentView
- A FragmentActivity
- A FragmentTransaction
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**112. The first of the two parameters of the Log.d method is**

- the name of the log file in which to store the message
- the message to print to the console
- the name of the Activity that should receive the message
- a tag for identifying the message (normally the Activity name)
- the logging level of the message

**113. What do all attribute names start with?**

- /res/layout/
- android:
- view.group:
- view:

**114. What method would you use to print debugging messages from an Android app?**

- System.out.print
- Log.d
- System.out.println
- Log.e

**115. What file type is the Android manifest file?**

- TXT
- XML
- HTML
- CSV

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- An app simulator
- AVD configuration
- Test programs

**117. What type of resource specifies how different resources come together to form the definition of an Android application screen?**

- Layout XML resource
- Dimension resource
- Menu resource
- Application resource

**118. Which programming step is necessary for a Fragment to communicate with its Activity?**

- The Activity implements the methods in the Fragment-defined interface
- The Fragment defines an interface listing the Activity methods it needs to call
- All of these answers
- The Fragment captures the interface implementation (the Activity object) in its onAttach lifecycle method
- None of these answers

**119. What do all attribute names start with?**

- view.group:
- view:
- android:
- /res/layout/

**120. Which one of the following attributes is not shared by all ViewGroup subtypes?**

- layout\_gravity
- id
- layout\_height
- layout\_width

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- run()
- start()
- setOrientation()
- onCreate()

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- LayoutParams
- AndroidManifest
- LayoutResources
- LayoutAttrs

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- Justifies the text of its child controls

**125. What must a Fragment be hosted within?**

- The <uses-configuration> tag
- None of these answers
- The <uses-sdk> tag
- A View class
- An Activity class

**126. The following class has methods we override to actually create or upgrade an Android database.**

- SQLiteDatabase
- DatabaseHelper
- MySqlEngine
- HamburgerHelper
- SQLiteOpenHelper

**127. What is the very last method the system calls when an activity is destroyed?**

- None of these answers
- onPause
- onResume
- onStop
- onCreate