"I agree to complete this exam without unauthorized assistance from any person, materials, or device."

This quiz is worth 60 points total. READ through all questions carefully. Write your answers on the test legibly and unambiguously.

I. TRUE/FALSE - Please circle your choice: Tr for true, Fa for false. [1 point each = 12 total]

1) To improve responsiveness, an app should use broadcast receivers instead of notifications.  
   Tr   Fa

2) An android application version is specified in the manifest file.  
   Tr   Fa

3) An activity declaration in the manifest file must have a name that matches the name of a class definition.  
   Tr   Fa

4) More than one activity declared in the manifest file can be launched as the main action.  
   Tr   Fa

5) Activities can only be launched with the startActivityForResult method.  
   Tr   Fa

6) We use finish() to explicitly return from an activity.  
   Tr   Fa

7) We can use external files (Java IO filestreams) to store data used by an android application.  
   Tr   Fa

8) An android app can only use one (default) SharedPreference file.  
   Tr   Fa

9) User selections for items in a Preference activity are stored as soon as the user makes them (not when the view is closed).  
   Tr   Fa

10) Menu items can be defined in an xml file or set dynamically in code.  
    Tr   Fa

11) Custom styles can be defined to inherit from built-in android styles or other app defined styles.  
    Tr   Fa

12) Style settings for a button can be applied as easily in source code as they can in xml.  
    Tr   Fa
II. MULTIPLE CHOICE - Please circle the best choice. [2 points each = 28 total]

1) Which component type is not activated by an intent?
   a) activity        b) broadcast receiver   c) content provider   d) service

2) Suppose we want ActivityA to initiate ActivityB. Which is the correct intent to use?
   a) new Intent(ActivityA.java, ActivityB.java)       b) new Intent(this.ActivityA, ActivityB)
   c) new Intent(ActivityA, ActivityB.class)           d) new Intent(ActivityA.this, ActivityB.class)

3) Which method is used to handle actions that must be executed when an intent returns to the originating activity?
   a) onActivityResult   b) onResume   c) onIntentReturn   d) onStart

4) Which method is used to code the actions taken when a user hits a button?
   a) onButton            b) onClick           c) onClickListener   d) onTouch

5) Which storage type should be used to save activity instance state?
   a) Bundle        b) SQLite        c) ContentProvider       d) external files

6) Which storage type should be used to share data among different applications?
   a) Bundle               b) SQLite               c) ContentProvider       d) Shared Preferences

7) Which storage mechanism is used to save and retrieve application settings?
   a) Bundle               b) SQLite               c) ContentProvider       d) Shared Preferences

8) What type of value cannot be stored in SharedPreferences?
   a) Boolean        b) Double        c) Integer       d) String

9) What type of items should be put into Context Menus?
   a) those relevant to the item clicked   b) app navigation   c) app settings   d) all of the above

10) Which type of testing can benefit from using the Android "monkey" tool?
    a) black-box    b) white-box   c) unit   d) regression
11) What are cvs and git?
    a) cloud storage sites    b) testing frameworks    c) open source licenses    d) versioning systems

12) Which type of layout file goes in the res/xml folder instead of res/layout?
    a) activity screens    b) custom list items    c) user preferences    d) none

13) To what level of components can we apply styles in Android?
    a) view elements    b) activities    c) applications    d) all of the above

14) How long does an Android app have to respond to user input before an ANR dialog appears?
    a) 150 milliseconds    b) 5 seconds    c) 10 seconds    d) 1 minute

III. SHORT ANSWER - Please print legibly. You should read through all questions before answering and may not use the same answer for more than one question. [20 total]

1) Identify two desired behaviors or guidelines for proper paired programming beyond the obvious driver/navigator roles. [2]

2) Explain how storing values into SharedPreferences works. [4]
3) Identity three attributes particular to mobile applications that should be explicitly tested. [3]

4) Identify three types of approaches or tweaks to code that should be used to improve mobile app efficiency. [3]

5) What are two ways to avoid seamlessness issues (problems) in a mobile app? [2]

6) What are two compatibility issues you should tackle before marketing your app? [2]

7) When should you use an SQLite database to store data? Compare to using other storage mechanisms. [4]