University College Dublin
An Coláiste Ollscoile, Baile Átha Cliath

Name:
Student No:
Date:

EXAMINATION 2012

Mobile Application Development (Android) COMP30480/COMP30510

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Time allowed: 2 hours

Instructions for candidates

Answer all questions. Each student is requested to read each question carefully and then **WRITE** the letter of the correct answer beside the question number.

Total of 100 marks available on the paper.

1. **Which implementation of Java is Android based on?**
   a) GNU Classpath
   b) OpenJDK
   c) Apache Harmony
   d) Sun Java

2. **Name a class that serves as a foundation for Android visual interfaces**
   a) Interface
   b) Forms
   c) Views
   d) Windows

3. **The easiest way to load an arbitrary data into a list on screen is to use**
   a) ArrayAdapter
   b) ListLoader
   c) DataLoader
   d) FormLayout

4. **What is the method to get a root of the static files attached to your code?**
   a) isolatedStorage
   b) getStorage
   c) getResources
   d) getStaticFiles

5. **What class is used to save and restore the activity's state?**
   a) Bunch
   b) Bundle
   c) Tuple
   d) State

6. **Pressing buttons is done by implementing _____ class**
   a) onButtonPress
   b) EventHandler
   c) onClickListener
   d) it is done automatically

7. **Android has the following library to help deal with swipe detection**
   a) GestureDetector
   b) SwipeDetect
   c) GestureService
   d) it does not, has to be downloaded elsewhere

8. **Static application messages should normally be placed in**
   a) storage/messages folder
   b) res/values folder
   c) res/text folder
   d) directly in code

9. **Application permissions are specified in**
   a) Application class
   b) Resource folder
   c) Classpath file
   d) Android manifest file

10. **Property that sets background to image in layout is called**
   a) android:background
   b) android:backgroundImage
   c) android:bgImage
   d) android:bgColour

11. **Property that sets the width of a widget to be equal to the view that contains it is called**
   a) wrap_view
   b) match_parent
   c) fill_view
   d) align_parent

12. **Popup messages in Android are generated with what class?**
   a) PopupMessage
   b) AlertDialog
   c) MessageShow
   d) AlertView

13. **Android OS is**
   a) open and free
   b) open and non-free
   c) closed and free
   d) closed and non-free

14. **.dex file extension stands for**
   a) dexterity
   b) dalvik executable
   c) dalvik executive
   d) nothing, just a bunch of letters android developers liked

15. **Which of the following is NOT a valid activity state?**
   a) Active
   b) Passive
   c) Paused
   d) Inactive/Dead

16. **SubActivity is a type of activity that**
   a) Runs underneath the main activity
   b) Returns result to main activity
   c) Disappears without a trace
   d) Such type of activity does not exist

17. In Android, what class does its message passing system uses?
   a) EventHandler
   b) Intent
   c) Invoke
   d) MsgControl

18. You would like to reuse someone else's code in your proprietary, closed-source application. Code shared under what license you won't be able to use?
   a) Apache
   b) BSD
   c) MIT
   d) GPL

19. Which of the following resources is available to your programme without asking for additional security permissions?
   a) GPS
   b) WiFi
   c) Accelerometer
   d) Bluetooth

20. Which of the following is not a way to create/read/update and delete data in Android?
   a) Preferences
   b) Network
   c) Plain files
   d) All of the above are valid ways to CRUD data

21. Access control in Android is enforced by what system component(s)?
   a) Linux kernel and Dalvik VM
   b) Dalvik VM
   c) Hotspot JVM
   d) Linux kernel

22. What is not a type of WakeLock?
   a) Full wake
   b) Dim screen
   c) Bright screen
   d) Partial CPU

23. Which of the following app building blocks Intent cannot invoke?
   a) Content Providers
   b) Activities
   c) Services
   d) Intents can invoke all of the above

24. Which of the following is not a valid type of service?
   a) Intent Service
   b) Started Service
   c) Bound Service
   d) Content Service

25. Which of the following describes default Android application security arrangements?
   a) Shared UID, shared GID, shared Dalvik VM instance, shared storage
   b) Unique UID, shared GID, shared Dalvik VM instance, own storage
   c) Unique UID, unique GID, own Dalvik VM instance, shared storage
   d) Unique UID, unique GID, own DalvikVM instance, own storage

26. Layout, where position of an element depends on a position of other elements is called?
   a) Dependent Layout
   b) Relative Layout
   c) Element Layout
   d) Related Layout

27. Which of the following is not a protection level for an activity?
   a) Normal
   b) Dangerous
   c) Signature
   d) All of the above are valid protection levels

28. What is the recommended way of creating a task that should start periodically, but not at specific times?
   a) Running Activity
   b) Started Service
   c) Inexact Alarm
   d) Implicit Intent

29. Which Creative Commons-licensed material can be used in creation of proprietary, closed source applications?
   a) CC-BY
   b) CC-BY-SA
   c) CC-BY-NC
   d) CC-BY-ND

30. Which of the following is a valid way to access Content Provider data?
   a) File
   b) SD Card
   c) Socket
   d) URL