**CSC3054/7054 Web and Mobile App Development**

**Question 1:**

1. Belong to Android runtime, (2) belong to application framework, (3) belong to Linux kernel.

**Question 2:**

MainActivity – defines the behaviours of the app. Activity\_main - declares the user interface.

**Question 3:**

To inform the Dalvik VM to run our code in addition to the existing code in the onCreate() of the parent class. If we leave out this line, then only our code is run and the existing code is ignored.

**Question 4:**

This code is related to the right side image. This is because the code includes “android:stretchColumns=”2”” that indicates three columns applied to the design (the index starts from 0).

**Question 5:**

super.onResume();

sensorManager.registerListener(this, sensorManager.getDefaultSensor(Sensor.TYPE\_ACCELEROMETER), SensorManager.SENSOR\_DELAY\_NORMAL);

Similar to the above for TYPE\_ORIENTATION.

**Question 6:**

d.

Memory profiling: Android SDK provides two ways for profiling the memory use of an app. One is to use the Allocation Tracker tab in DDMS (Dalvik Debug Monitor Server, a debug tool), and the other is to use the Dump HPROF file button in DDMS.

**Question 7:**

Sorry, there is no error in this code.

**Question 8:**

d.

**Question 9:**

android:id=*"{@+id/SartBtn}"*>

android:id=*"{@+id/FinishBtn}"*>

**Question 10:**

As the Android application launches Activity instances, we need to implement our own activity. In Java, it is done by extending the original Activity class. The public class prefix is to indicate that this is a class and that it can be launched by classes from other packages and places.

**Question 11:**

Call onCreate superclass to store instance state.

Inflate the XML into a View object and sets it as the Content View.

Create an object of AudioManager class by calling the getSystemService() method.

Check if the phone is in the silent mode.

Change the ringer mode using the AudioManager class as appropriate.

Find a view that is identified by the id attribute from the XML related to the activity.

Register an onClickListener() method to a button view.

Implement an onClick() callback method.

Change the image using the Drawable class as appropriate.

Use the onResume() class to continuously update the image and the ringer mode.