Midterm Exam

Student Name: Student #:

Q1: Multiple Choice **(10 points, 2 points each)**

1. What Activity method you use to retrieve a reference to an Android view by using the id attribute of a resource XML?

A. findViewByReference(int id)

B. findViewById(int id)

C. retrieveResourceById(int id)

D. findViewById(String id)

2. Which configuration file holds the permission to use the internet?

A. Layout file

B. Property file

C. Java source file

D. Manifest file

3. Which of the following is NOT true about the R.java file?

A. It is auto-generated during the build of the project.

B. It is used by developers to access any resource through an ID.

C. It can be modified manually to change the ID of a resource.

D. It contains resource IDs for all resources in your /res/ folder.

4. What is not true about the AndroidManifest.xml file?

A. It declares the views used within the application.

B. It declares user permissions the application requires.

C. It declares application components.

D. It declares hardware and software features used within the application

5. When including a text file in your application to read from as a resource, what is the recommended location of such file?
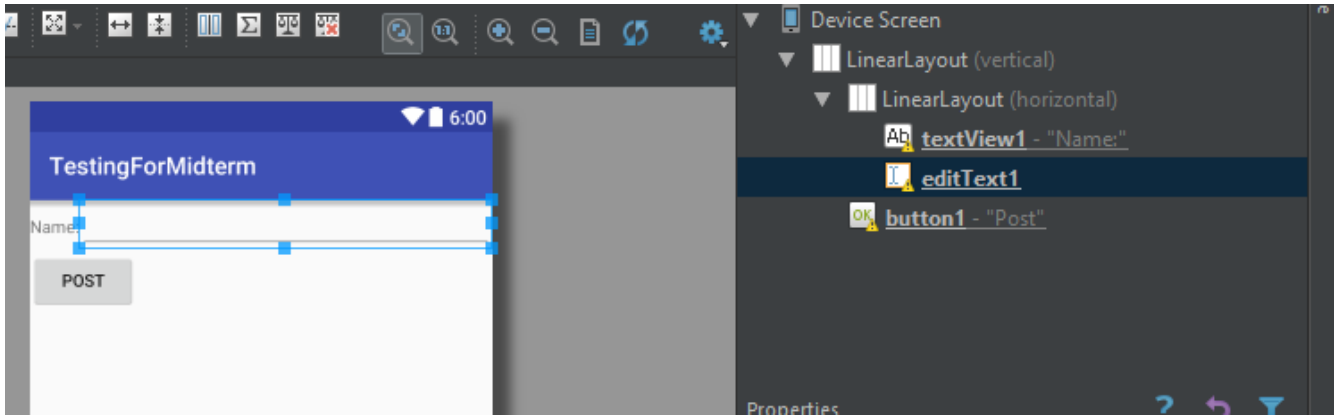
A. res/anim

B. res/files

C. res/raw

D. res/values

Q2: What is the usage of the following components in Android application: Activities, services, broadcast receivers and content providers? **(8 points)**

Q3: What are the differences between linear layout and related layout? **(3 points)**

Q4: Sketch the UI for the following XML code? **(8 points)**

```
<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android=http://schemas.android.com/apk/res/android

android:layout_width="match_parent"

android:layout_height="match_parent"

android:orientation="vertical" >

<LinearLayout

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:orientation="horizontal" >

<TextView

android:id="@+id/textView1"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="Name:" />

<EditText

android:id="@+id/editText1"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:layout_weight="1"

android:ems="10" />

</LinearLayout>

<Button

android:id="@+id/button1"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:text="Post" />

</LinearLayout>
```

Q5: Consider the following data then answer the following questions. **(11 points)**

	sex	mask	cape	tie	ears	smokes	class
			training data				
batman	male	yes	yes	no	yes	no	Good
robin	male	yes	yes	no	no	no	Good
alfred	male	no	no	yes	no	no	Good
penguin	male	no	no	yes	no	yes	Bad
catwoman	female	yes	no	no	yes	no	Bad
joker	male	no	no	no	no	no	Bad
			test data				
batgirl	female	yes	yes	no	yes	no	??
riddler	male	yes	no	no	no	no	??

1. Build the decision tree for the training data. **(4 points)**

2. What is the output class of the testing data? **(2 points)**

3. If the testing data is not available, what is the best technique to estimate the accuracy of decision tree? **(2 points)**

4. If ten persons were classified as Good by the machine learning algorithm, but actually there are three of them are Bad. What is the value of Precision? **(3 points)**

Q6: Given an array of even and odd numbers, using **prolog** split them to two separated lists one for the odd numbers and other for even. Consider the following example? **(10 points)**
Split([1,2,3,4,5,6],(R1,R2).

R1=[1,3,5]

R2=[2,4,6]