

# Exam Sample

Exam Title: Android Security Essentials

Exam Code: AND-X02

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Q1 - By default, all Android applications have no permission to access any protected resource that would have adverse effects on the system or on other applications.

a- True

b- False

Answer: True

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Q2- It is not necessary that every application installed on an Android device be signed by the developer before being published.

a- True

b- False

Answer: False

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Q3- If two applications are developed by the same developer, they can share each other's data if they have the same signature and the same android:sharedUserId flag set in their manifest files.

a- True

b- False

Answer: True

Q4- Releasing updates of an application into Google Play requires signing it with the same certificate, or else all the previous users will not be notified of the update and eventually are lost.

a- True

b- False

Answer: True

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Q5- A digital certificate is an electronic “passport” that allows a person, computer or organization to exchange information securely over the Internet using the public key infrastructure (PKI).The message is encrypted with the Private key, and can only be decrypted with the Public key.

a- True

b- False

Answer: False

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Q6- Permission is the right given to an application by Android to allow access to restricted system API (Application Programming Interface) such as Camera, Bluetooth, GPS, etc...

a- True

b- False

Answer: True

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Q7- During an application run-time, permissions may be enforced at a number of places when calling into the system, starting an activity, sending and receiving broadcasts, accessing and manipulating a content provider, and binding to or starting a service.

a- True

b- False

Answer: True

Q8- Any Android application can protect itself by declaring permissions that can be accessed by other applications. This can be achieved using the <permission> tag in the activity\_main.xml file of the Android applications providing the permission.

- a- True
- b- False

Answer: False

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Q9- Content providers can help an application manage access to data stored by it or by other apps. They also provide a way to share data with other apps.

- a- True
- b- False

Answer: True

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Q10- Android application developers can create custom permissions that should be labeled properly.

- a- True
- b- False

Answer: True

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Q11- Which of the following choices is one of the different levels of permission protection?  
(Select four)

- a- Normal
- b- Dangerous
- c- Signature
- d- Sharing
- e- System

Answer: a,b,c,e

Q12- Which of the following Android levels of permissions are granted automatically without the user's approval?

- a- Normal Permissions or Level-Zero Permissions.
- b- Dangerous Permissions or Level-one Permissions.
- c- Signature Permission or Level-two Permissions.
- d- Signature and System Permissions or Level-three Permissions.

Answer: a

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Q13- Which level of permissions is related to READ\_CALENDAR, WRITE\_CALENDAR, CAMERA, and READ\_CONTACTS?

- a- Normal Permissions or Level-Zero Permissions.
- b- Dangerous Permissions or Level-one Permissions.
- c- Signature Permission or Level-two Permissions.
- d- Signature and System Permissions or Level-three Permissions.

Answer: b

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Q14- Permissions required for an application to perform its operations are called application level permissions. Which are the types of application level permissions a developer can use? (Select two)

- a- System-defined permissions.
- b- Application-defined permissions.
- c- GPS - defined permissions.
- d- Payment - defined permissions.

Answer: a, b

Q15- Android uses “Intents” to communicate and send data between different components which make it vulnerable to malicious attacks. Which of the following choices are component-level Permissions to protect this type of communication? (Select Four)

- a- Activity
- b- Service
- c- Content Provider
- d- Broadcast Receiver
- e- Widgets

Answer: a,b,c,d

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Q16: Any application which would like to receive a message can receive the broadcast. Which of the following mechanisms can be used to protect broadcasts? (Select two)

- a- Broadcast receiver decides which broadcast it will receive.
- b- Broadcast receiver cannot decide which broadcast it will receive.
- c- Broadcast decides which receiver can receive its broadcast.
- d- Broadcast receiver does not decide which broadcast it will receive.

Answer: a ,c

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Q17- If you are developing more than one application that is signed with the same certificate, and you want these applications to share access to each other’s data and run in the same process, you need to give them the same .....

- a- user ID (sharedUserId).
- b- user name and password.
- d- app description.
- e- Ad unit ID.

Answer: a

Q18- Which of the following choices represent the flow of states of data within any app?  
(Select three)

- a- Stored data
- b- Data under processing
- c- Data in transit
- d- Printed Data

Answer: a,b,c

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Q19- If your database contains sensitive information, it is recommended not to store it on external storage. If you want to share the database with other applications, then you have to use a ..... to protect your app's data.

- a- Separate Storage
- b- Content Provider
- c- Shared Folder
- d- Internal Storage

Answer: B

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Q20 - Android stores cache files in the filesystem and sandboxes along with the application. Cache files are created under directory .....

- a- /data/data/<application-path>/cache/
- b- /data/files/<application-path>/cache/
- c- /data/personal/<application-path>/cache/
- d- /data/cache/<application-path>/cache/

Answer: a

Q21- Android SQLite database files are stored under the .....  
directory

- a- /data/database/<application-path>/databases/
- b- /data/data/<application-path>/databases/
- c- /data/files/<application-path>/databases/
- d- /data/mydata/<application-path>/databases/

Answer: b

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Q22-getExternalFilesDir( ) method is used to get the directory of the external storage.

- a- True
- b- False

Answer: a

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Q23- Which of the following choices is considered Android application storage? (Select five)

- a- SharedPreferences
- b- Android's file system
- c- External Storage
- d- Cache
- e- SQLite database
- f- Microsoft Access
- g- Text file

Answer: a,b,c,d,e

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Q-24 The Logcat window in Android Studio displays system messages, such as when a garbage collection occurs, and messages that you added to your app with the Log class. It displays messages in real time and keeps a history so that you can view older messages.

- a- True
- b- False

Answer: a

Q25- What is the purpose of adding the following permission tag to your app's AndroidManifest.xml file?

```
<uses-permission android:name="android.permission.INTERNET" />
```

- a- Permission to connect the app to internet.
- b- Permission to enable cookies' files on your app.
- c- Permission to configure Chrome as default web browser.
- d- Permission to open hidden internet connection.

Answer: a

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Q26- The following image includes a code of permission group. Where this code will be written in the Android app?

```
<permission-group android:name="@string/androidatcname"  
android:description="@string/androidatcdesc"  
android:icon="@drawable/androidatcicon"  
android:label="@string/androidatclabel"  
android:logo="@drawable/androidatclogo"  
android:priority="High" />
```

- a- MainActivity.java or MainActivity.kt
- b- AndroidManifest.xml
- c- activity\_main.xml
- d- string.xml

Answer: b

Q27- If you want to configure your app to receive an intent from another app, you should open AndroidManifest.xml file in your app, and then add ..... including the name and category which will be used in the second app's configuration.

- a- intent filter.
- b- user name and password.
- c- certificate key.
- d- Android mini version.

Answer: a

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Q28- Assume that you have two apps signed with the same certificate and you want them to share access to each other's data. The manifest file in the first app is illustrated in the following image. It has sharedUserId = "com.sharedID.example" .

```
<manifest android:sharedUserId="com.sharedID.example"  
  
    android:versionCode="1"  
  
    android:versionName="1.0"  
  
    package="com.example.example1"  
  
    xml:android="http://schemas.android.com/apk/res/android">
```

Which of the following choices is the value of the sharedUserId in the second app?

- a- com.sharedID.example
- b- com.example.example1
- c- app2Name. com.sharedID.example
- d- app2. com.sharedID.example

Answer: a

Q29-Your app receives location updates from NETWORK\_PROVIDER or from GPS\_PROVIDER. If your app receives location information from either of these location provider sources, you need to declare that the app uses these hardware features in your app manifest. Which of the following tags gives the location information to your app?

- a- <uses-permission android:name="android.permission.ACCESS\_FINE\_GPS" />
- b- <uses-permission android:name="android.permission.INTERNET" />
- c- <uses-permission android:name="android.permission.ACCESS\_FINE\_LOCATION" />
- d- <uses-permission android:name="android.permission.ACCESS\_GPS\_LOCATION" />

Answer: c

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Q30- Complete the following blank area with one of the following choices:  
You can register your app with "Android Backup Service" at:  
<https://developer.android.com/google/backup/signup.html> and get "Android Backup Service key" for your application. This key will be added to ..... tag with its attributes to add them to the manifest file in the next step.

- a- <permission>
- b- <meta-data>
- c- <string>
- d- <key>

Answer: b

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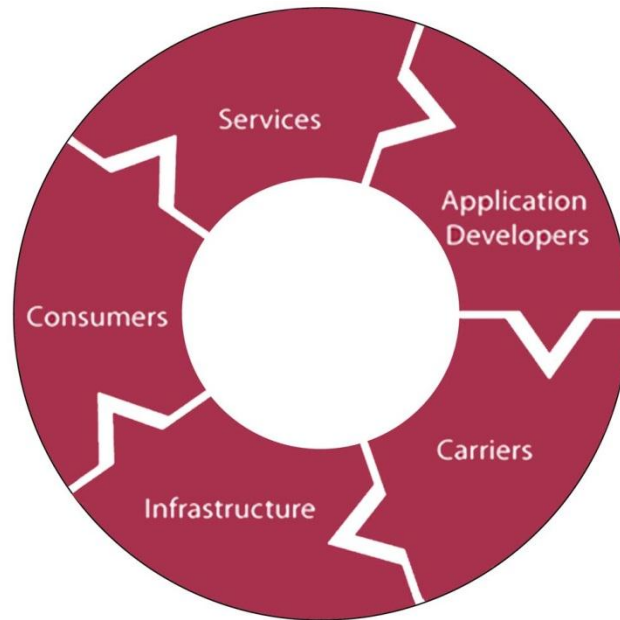
Q31- Which of the following choices are considered as principles of data security? (Select three)

- a- Confidentiality
- b- Integrity
- c- Availability
- d- Independency

Answer: a,b,c

Q32- The following image includes some components which you must be aware of to learn about the complexity of the security issue and the fact that software developers can only deal with security issues within their own applications. These components belong to

.....



- a- Mobile Environment.
- b- Android Development.
- c- Telephone Land Lines Network.
- d- Internet.

Answer: a

.....

Q33- In the following image of code, what is the purpose of using MODE\_PRIVATE in the method getPreferences( )?

```
class MainActivity : AppCompatActivity() {

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
        save.setOnClickListener({
            savePreferences("save", enter_data.text.toString())
            show.isEnabled = true
        })
        show.setOnClickListener({
            load_data.setText(loadPreferences())
        })
        show.isEnabled = false

        /*
        * If there is no data currently stored then the
        * show button will be shown as disabled when
        * application is launched.
        */

        if (loadPreferences().isNotEmpty())
            show.isEnabled = true
    }

    private fun savePreferences(key: String, value: String) {
        val sharedPreferences = getPreferences(MODE_PRIVATE)
        val editor = sharedPreferences.edit()
        editor.putString(key, value)
        editor.commit()
    }

    private fun loadPreferences(): String {
        val sharedPreferences = getPreferences(MODE_PRIVATE)
        val savedData = sharedPreferences.getString("save", "")
        return savedData
    }
}
```

- a- This allows you to store data and make it private to this application. Also, No other applications can access your saved data.
- b- This allows you to share your data with other applications which have the same mode.
- c- This allows you to run your apps in Android API 27 or higher.
- d- This allows you to run your app with minimum use of device battery.

Answer: a

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Q34- What is the result of clicking Button1 in the code which is illustrated in the following image? Assuming that `write_to_internal_storage` is the name of an activity that allows users to write to internal storage.

```
Button1.setOnClickListener({
    startActivity(Intent(this, write_to_internal_storage::class.java))
})
```

- a- Creates an intent to open an activity that writes to the internal storage.
- b- Creates an intent to open an activity that reads from the internal storage.
- c- Creates an intent to open an activity that reads from the external storage.
- d- Creates an intent to open an activity that writes to the external storage.

Answer: a

Q35- What is the result of click the Button1 in the code which is illustrated in the following image? Assuming that write\_to\_external\_storage is the name of an activity that allows users to write to external storage.

```
Button1.setOnClickListener({
    startActivity(Intent(this, write_to_external_storage::class.java))
})
```

- a- Creates an intent to open an activity that writes to the internal storage.
- b- Creates an intent to open an activity that reads from the internal storage.
- c- Creates an intent to open an activity that reads from the external storage.
- d- Creates an intent to open an activity that writes to the external storage.

Answer: d