

**Unit 1: Introduction to Android and Development tools****Que: 1 Answer the following question in short.**

1. What is Android?
2. What kind of tool is used to simulate Android application?
3. What kind of situation shall be raised if adb do not work normally?
4. Can we use C++ language for Android application development? Justify your answer.
5. What is generated by DVM?
6. NFC feature is available from which version of Android?
7. How Honeycomb Android version differs from other Android versions?
8. Each application can have zero or more activities. Justify your answer.
9. Which library provides database support for Android application?
10. List any two perspectives name provided by Android sdk.
11. To save string values which file is used?
12. How an application developed with HVGA skin will react during debugging with QVGA skin?
13. Which component of Android architecture is responsible for wifi?
14. Which component of Android Runtime is responsible for generating .dex file?
15. Which licensing has been approved with Android?

**Que: 2 Answer the following question in brief.**

1. List various folder name which are useful to save only resources for Android application project.
2. What role does DDMS plays in Android application development?
3. Can we execute Android application without AVD and real device? Justify your answer?
4. Describe a real time scenario where Android device can be used?
5. List various Android versions with its version name.
6. Why Google wanted Android to be open and free?
7. What is the difference between the android:versionCode and android:versionName attributes in the AndroidManifest.xml file?
8. Give any two points of difference between Android 4.0 and 2.0.
9. Give any four points of features of Android 3.0.
10. To monitor debugging process which tool is useful? List other tool of eclipse.
11. Which file is auto generated and can't not be modify manually? Which kind of data placed in same file?
12. Can we launch same AVD multiple time for differ purpose?
13. How do you specify the minimum version of Android required by your application?
14. How do you specify the target version of Android required by your application?
15. Where does color.xml file can be placed in Android application project?

**Que: 3 Answer the following question in details.**

1. Write a short note on Android architecture.
2. **What is AIDL (Android Interface Definition Language)?** What data types are supported by AIDL?
3. What are the core components under the Android application architecture? Explain any two in detail.
4. Write a note on APK package.
5. Write a note on Dalvik Virtual Machine component of Android Runtime.
6. Write a note on Android versions.
7. Write a note on Android device available in market.
8. Explain various resources which can be specified in Android application project.
9. List out the required tool to develop an Android based application. Explain any one in detail.
10. Demonstrate how you can specify Android versions supported by the application.
11. Write note on Android platform.
12. Explain Android perspectives.

13. Write steps to develop an simple Android application with an appropriate example.
14. Explain the difference between Java virtual machine and Dalvik virtual machine.
15. Write a note on APK component.
16. What is the use of AndroidManifest.xml file. Write down the structure of it with an appropriate example.
17. Explain the following things in the context of android device: *Screen size, Screen density, Orientation, Resolution, Density-independent pixel (dp)*.
18. How Android supports multiple screen? Explain with an appropriate example.

**Que: 4 Select most appropriate answer from the given option.**

1. Select a component which is NOT part of Android architecture.
  - a. Android framework
  - b. Libraries
  - c. Linux kernal
  - d. Android document
2. What does AVD stands for?
  - a. Android Virtual Device
  - b. Auto Virtual Device
  - c. Android Virtual Design
  - d. Android Voice Device
3. Required folder when Android project is created.
  - a. build
  - b. build/
  - c. bin
  - d. bin/
4. Adb stands for?
  - a. Android Drive Bridge.
  - b. Android Debug Bridge.
  - c. Android Destroy Bridge.
  - d. Android Delete Bridge.
5. Is list data type supported by AIDL?
  - a. Yes
  - b. No
6. Component which is NOT under the Android application.
  - a. Content providers
  - b. Resource externalization
  - c. Applications
  - d. Notifications
7. Which language is supported by Android for application development?
  - a. PHP
  - b. VB.NET
  - c. Java
  - d. C++
8. Which of the following contains all the code that provides the main features of an Android OS?
  - a. Linux kernel
  - b. Libraries

- c. Android runtime
  - d. Application
9. What is contained within the AndroidManifest.xml file?
- a. The source code
  - b. The list of strings used in the app
  - c. The permissions the app requires
  - d. None of the above
10. What is the extension of file which is generated by DVM?
- a. .apk
  - b. .xml
  - c. .dex
  - d. .java
11. Android is based on Linux for the following reason.
- a. Portability
  - b. Security
  - c. Networking
  - d. All of the above
12. Which layer of Android architecture is comprised of hardware drivers?
- a. Application Framework
  - b. Android Runtime
  - c. Linux Kernel
  - d. Libraries
13. What was the main reason for replacing the Java VM with the Dalvik VM when the project began?
- a. Java VM ran too slow
  - b. Java VM was too complicated to configure
  - c. Java virtual machine was not free
  - d. There was not enough memory capability
14. From a phone manufacturer's point of view, what makes Android so great?
- a. Aside from some specific drivers, it provides everything to make a phone work
  - b. It allows them to compete with Apple's iPhone
  - c. It makes the hardware work better
  - d. It allows users to create apps, generating revenue for the companies
15. Which of the following is not a component of an APK file?
- a. Dalvik executable
  - b. Native Libraries
  - c. Resources
  - d. All of these are components of the APK

**Que 5: Fill in the blanks.**

- 1. Android is a \_\_\_\_\_ based mobile operating system.
- 2. The \_\_\_\_\_ virtual machine enables every Android operating system to run in its own process.
- 3. For Android application development, \_\_\_\_\_ RDBMS is used to store and retrieve data.
- 4. OHA stands for \_\_\_\_\_.
- 5. The \_\_\_\_\_ manages the various versions of the Android SDK currently installed on your computer.
- 6. DDMS stands for \_\_\_\_\_.
- 7. The \_\_\_\_\_ file contains detailed configuration information for your application.
- 8. The \_\_\_\_\_ folder contains source code of an Android application.
- 9. The \_\_\_\_\_ file is auto generated which can not be modifiable.
- 10. The Dalvik Virtual Machine generates \_\_\_\_\_ extension file.
- 11. Android platform is owned by \_\_\_\_\_ organization.
- 12. All the device drivers are part of \_\_\_\_\_ layer in Android architecture.

13. In \_\_\_\_\_ years Google has purchased Android.
14. Android has \_\_\_\_\_ operating system as the kernel.
15. Android version 2.2 is known as \_\_\_\_\_ nickname.
16. Android first release has launched on phone namely \_\_\_\_\_ .
17. The latest version of Android is \_\_\_\_\_.
18. Ice cream sandwich is the code name of \_\_\_\_\_ Android version.
19. The \_\_\_\_\_ hosts all the various Android applications written by third-party developer.
20. To develop an Android application \_\_\_\_\_ programming language can be used.

### Unit 2: Activities, Fragments, and Intents

#### Que: 1 Answer the following question in short.

1. Define Intent.
2. What are the four essential states of an activity?
3. What is the function of an intent filter?
4. When is the onDestroy() method invoked?
5. What is a Fragment?
6. What is the use of setContentView() method?
7. What is an action?
8. Where will you declare your activity so the system can access it?
9. Where can you define the icon for your Activity?
10. Define Activity.
11. What do you mean by resource?
12. Which object is passed to onCreate () method?
13. To create an Activity which class must be inherits in our sub class?
14. What is the use of Context class in Android?
15. What is the use of Extras object of Intent?
16. List out the Constants of ViewGroup.LayoutParams class.
17. What is the use of LogCat window in eclipse?
18. Which of the theme is use to an activity to display floating dialog?
19. What is the fragment?
20. Name one key difference between fragment and activity.

#### Que: 2 Answer the following question in short.

1. Describe Activities in brief.
2. List out the primary pieces of information in an intent.
3. List out any four general action to be performed with intent.
4. List out secondary attributes that you can also include with an intent.
5. Write down any one difference between Explicit intent and Implicit intent.
6. What is the use of intent filter tag in AndroidManifest.xml file?
7. Which object is used to pass the data from one activity to other activity.
8. List image formats supported in Android.
9. What is the use of the strings.xml file?
10. Define: Context
11. Define: Style, theme
12. Difference between onCreate ( ) and onStart ( ) in android service life cycle?
13. What is Intent? Discuss its usefulness in short.
14. Write note on Android manifest file configuration.
15. Write down the snippet to applying Dialog theme to an Activity.
16. Write down the snippet to hide the title of an Activity.
17. Using thread write down the snippet to display a progress dialog till 2 seconds.

18. List out any four objects of Intent.
19. What is the difference between onCreate() and onResume() method?
20. Write down the difference between onStop() and onDestroy() method.
21. Write down the advantages of Fragments.
22. What will happen if you have two or more activities with the same intent filter action "LAUNCHER"?
23. Write the code to invoke the built-in Browser application.
24. Which component can you specify in an Intent filter?
25. Write the difference between Toast class and Log class.

**Que: 3 Answer the following question in details.**

1. What is AndroidManifest.xml? Write down its usages with appropriate example.
2. Is it possible to use or add a fragment without using a user interface? Explain with an appropriate example.
3. Write a note on activity life cycle.
4. Which methods of the android.util.Log class can be used to add logging support to Android application?
5. How many permissions Android application has by default? What should be added to gain access to the built in camera?
6. Explain structure of AndroidManifest.xml file.
7. What are resources? List different types of resources with required directory filename and xml tag.
8. Describe different types of Drawable resources with example.
9. Write a snippet to transfer the data from one activity to another activity with possible validation.
10. Explain how to configure intent-filter in AndroidManifest.xml file with example.
11. What is Resource? How to define integer resource and string resource in XML file?
12. What do you mean by Activity stack? Explain with appropriate diagram.
13. Write note on 1) Color resource 2) Dimension resource.
14. Write a note on Fragment life cycle.

**Que: 4 Select most appropriate answer from the given option.**

1. Which is NOT state of an activity?
  - a. Active
  - b. Paused
  - c. Stopped
  - d. Stored
2. Paused is used
  - a. If the activity is at the background and still visible
  - b. If the activity is not visible
  - c. If the activity is at the foreground and visible
  - d. If the activity is at the foreground
3. What is ANR?
  - a. Application Not Responding
  - b. Application Not Required
  - c. Application Not Removing
  - d. Application Not Recording
4. What is NOT used in monitoring an activity.
  - a. Visible lifetime
  - b. Background lifetime
  - c. Entire lifetime
  - d. Foreground lifetime

5. A fragment is a part or portion of
  - a. an information
  - b. a time
  - c. an activity
  - d. a thing
6. What is contained within the Layout xml file?
  - a. The code which is compiled to run the app.
  - b. The strings used in the app.
  - c. The permissions required by the app.
  - d. Orientations and layouts that specify what the display looks like.
7. Android doesn't make any assumptions about a device's screen size, resolution, or chipset.
  - a. True
  - b. False
8. Your Java source code is what is directly run on the Android device.
  - a. True
  - b. False
9. Which of the following class is use for linking Activities?
  - a. intent
  - b. Intent
  - c. Context
  - d. this
10. Which of following constant is not use to specify height or width of the control?
  - a. FILL\_PARENT
  - b. MATCH\_PARENT
  - c. WRAP\_CONTENT
  - d. FILL\_VIEW
11. Which of the following method is called when the current activity is being pauses and previously activity is being resumed?
  - a. onPause()
  - b. onResume()
  - c. onStart()
  - d. onRestart()
12. Which of the following method is called when the activity has been stopped and restarting again?
  - a. onRestart()
  - b. onStop()
  - c. onDestroy()
  - d. onPause()
13. Which of the following method invokes another activity but does not return a result to the current activity?
  - a. onReturnActivity()
  - b. startActivity()
  - c. startActivityForResult()
  - d. None of the above.
14. Which of the following method invokes another activity but returns a result to the current activity?
  - a. onReturnActivity()
  - b. startActivity()
  - c. startActivityForResult()
  - d. None of the above.
15. To create a view of a fragment, which of the following method is invoked?
  - a. onAttach()
  - b. onCreate()

- c. onCreateView()
  - d. onCreateview()
16. Which of the following method is invoked when fragment is detached from the activity?
- a. onDestroyView()
  - b. onDetach()
  - c. onDestroy()
  - d. onStop()
17. Which of the following action is use to view the web page.
- a. ACTION\_VIEW
  - b. ACTION\_DISPLAY
  - c. ACTION\_SHOW
  - d. All of the above.

**Que 5: Fill in the blanks.**

1. In \_\_\_\_\_ file you can view the resources for your project.
2. Key-value pairs for additional information that should be delivered to the component handling the intent is known as \_\_\_\_\_.
3. If we need to pass data back from an activity, \_\_\_\_\_ method should use.
4. \_\_\_\_\_ method is called when activity becomes visible to user.
5. Before activity is destroyed by the user \_\_\_\_\_ method is called.
6. Using \_\_\_\_\_ class, we can navigate to an Activity.
7. If we want to pass data back from an Activity, we have to use \_\_\_\_\_ method.
8. \_\_\_\_\_ Method sets a result code and the data to be returned back to the calling activity.
9. When fragment has been associated with the activity \_\_\_\_\_ method is called.
10. During the fragment transaction, to place fragment into the back stack \_\_\_\_\_ method need to call.
11. If application needs to load a web page, you have to use \_\_\_\_\_ class object to invoke the built-in web browser to display the web page.
12. Passing data to an activity \_\_\_\_\_ object can be used.
13. \_\_\_\_\_ are mini-activities that can be added or removed from activities.
14. To display an activity as a dialog use \_\_\_\_\_ method and implement \_\_\_\_\_ method.
15. When activity is started, the \_\_\_\_\_ and \_\_\_\_\_ events are always called.
16. All activity must be declared in the \_\_\_\_\_ file.
17. To display notification \_\_\_\_\_ class can be used.
18. The Android OS will look for all activities that are able to satisfy request, is known as \_\_\_\_\_.
19. When the fragment's view is being removed \_\_\_\_\_ method is called.

**Unit 3: Designing User Interface****Que: 1 Answer the following question in short.**

1. What is Orientation in the context of Android layout?
2. Write a snippet to display aToast message?
3. Which kind of resources can be put into assets folder?
4. List out different type of ViewGroup in android.
5. What is difference between dp unit and px unit?
6. List out the types of dialog.
7. What is ContextMenu?
8. Explain DatePicker control.
9. What is view?
10. List at least four values of autoLink attribute in TextView control.
11. Explain AlertDialog in short.
12. List at least 2 properties of Listview control in Android.
13. List out the orientation name supported by LinearLayout.

14. Give the Layout name which groups the view into row and column.
15. List out any two ways to persist activity state.
16. List out any two ways to change layout orientation.
17. What is the use of `setRequestOrientation()` method?
18. Which view is use to display a list of an item?
19. Write a difference between Button and ImageButton.
20. Write down the different sates of CheckBox.
21. What is the purpose of ImageSwitcher?
22. Name two methods you need to override when implementing an option menu in your activity.
23. Name two methods you need to override when implementing a context menu in your activity.

**Que: 2 Answer the following question in short.**

1. What is the importance of XML-based layouts?
2. What is ViewGroup?
3. Explain `onCreateContextMenu()` and `registerForContextMenu()` methods.
4. How indicator progress status can be set programmatically?
5. Explain the `setFilters()` method that can be used with EditText control.
6. What is notification? How it is differ from Toast?
7. Give an example to show Alert Dialog.
8. Difference between Context menu and Option menu.
9. Difference between List and spinner.
10. Comparison between Gallery View and Image View.
11. Explain progress bar with any two properties.
12. Explain any four attribute of table layout.
13. Explain toggle button with example.
14. Write a snippet to display time picker dialog in brief.
15. Explain how you can add logging support to your application?
16. Demonstrate how to draw rectangles with rounded corners?
17. Why is the AbsoluteLayout not recommended for use?
18. What is the difference between `onPause()` method and `onSaveInstanceState()` method?
19. Name the three methods you can override to save an activity's state.
20. List out any four layout supported by Android.
21. How can you programmatically determine whether a RadioButton is checked?
22. How do you access the string resource stored in the string.xml file?
23. Write the snippet to obtain the current date.

**Que: 3 Answer the following question in details.**

1. Explain the difference between a regular bitmap and a nine-patch image?
2. Define notification. List out different type of notification available in Android. Explain any one of them with an appropriate example.
3. Define dialog. List out the types of dialog available in Android. Explain any one in detail with an appropriate example.
4. Explain how to use WebView control to load content from a specific website? What should be written to render raw HTML to WebView control?
5. Explain the four different tweening transformations.
6. Write an outline code to show frame by frame animation. Load 2 Bitmap resources and create AnimationDrawable. What is the purpose of `setOneShot()` method.
7. Explain TableLayout and TableRow view attributes.
8. Write detailed note on different types of layouts.
9. Explain with snippet Gallery view. How it is differ from Image View?
10. Explain the key methods that Activity must use to manage a Dialog.



11. What is the difference between `AutoCompleteTextView` and `MultiAutoCompleteTextView`? Show how to provide an `AutoCompleteTextView` for the user that can help them type some of the basic colors from an array in the code. Also show the layout resource definition for this `AutoCompleteTextView` control.
12. Explain animation supported by Android taking suitable example.
13. What is uses of following widgets and list its important properties and event  
`Progressbar`, `SeekBar`, `RatingBar`, `VideoView`, `Chronometer`, `ImageView`, `ToggleButton`
14. Differentiate:
  - `Context Menu` and `Option Menu`
  - `List` and `Spinner`
  - `ViewFlipper` and `ViewSwitcher`
15. What is Animation? Explain various ways to create animations?
16. How to make Android application which supports multiple skin size and density?
24. List out the animation supported by Android. Explain any one of them with an appropriate example.

**Que: 4 Select most appropriate answer from the given option.**

1. Android doesn't make any assumptions about a device's screen size, resolution, or chipset.
  - a. True
  - b. False
2. Which of the following method should be override in an Activity to display a dialog window?
  - a. `dialog()`
  - b. `onCreateDialog()`
  - c. `onDisplayDialog()`
  - d. `showDialog()`
3. Which of the following method is use to display a multi choice dialog?
  - a. `setMulti()`
  - b. `setMultiChoiceItems()`
  - c. `setItems()`
  - d. None of the above
4. Which of the following dialog is not supported by Android?
  - a. `Alert Dialog`
  - b. `ProgressDialog`
  - c. `TextPickerDialog`
  - d. `DatePickerDialog`
5. Which of the following folder can be use for landscape UI?
  - a. `layout`
  - b. `layout-land`
  - c. `layout-l`
  - d. None of the above.
6. Which of the following view shows items in a center-locked, horizontal scrolling list?
  - a. `ListView`
  - b. `Gallery`
  - c. `ScrollView`
  - d. All of the above.
7. Which of the following folder should contains images for low density device.
  - a. `drawable-ldpi`
  - b. `drawable-mdpi`
  - c. `drawable-hdpi`
  - d. `drawable-xhdpi`

8. Which of the following view shows items in a two-dimensional scrolling list?
  - a. ListView
  - b. GrideView
  - c. ScrollView
  - d. Gallery
9. Which of the following is not a subclass of BaseAdapter class?
  - a. ListAdapter
  - b. ArrayAdapter
  - c. StyleAdaapter
  - d. CursorAdapter
  - e. Spinner Adapter
10. Which of the following is not an example of AdapterView?
  - a. ListView
  - b. GridView
  - c. Spinner
  - d. Gallery
  - e. TextView
11. Which of the following method is called when MENU button is pressed?
  - a. onCreateOptionsMenu()
  - b. OnOpetionMenu()
  - c. onDisplayOptionsMenu()
  - d. onShowOptionsMenu()
12. When menu item is selected which of the following method is called?
  - a. onOptionsItemSelected()
  - b. onSelect()
  - c. onSelected()
  - d. onItemSelected()
13. Which of the following method is use to display the context menu?
  - a. CreateMenu()
  - b. ShowMenu()
  - c. ViewMenu()
  - d. DisplayMenu()
14. Which of the following view enable users to pick a particular date on the activity?
  - a. TimePicker
  - b. TimeDialog
  - c. TimeSetter
  - d. TimeView
15. Which of the following view enable users to pick a particular time on the activity?
  - a. TimePicker
  - b. TimeDialog
  - c. TimeSetter
  - d. TimeView

**Que 5: Fill in the blanks.**

1. The \_\_\_\_\_ file specifies the layout of your screen.
2. To specify how child views are positioned relative to each other \_\_\_\_\_ layout can be used.
3. \_\_\_\_\_ layout is a placeholder on screen that you can use to display a single view.
4. \_\_\_\_\_ layout allows users to scroll list of view.
5. To specify the dimension of views \_\_\_\_\_ unit of measure can be used.
6. To specify the font size \_\_\_\_\_ unit of measure can be used.
7. To get the dimension of the current device \_\_\_\_\_ class can be used.
8. To get the dimension of the current device \_\_\_\_\_ method can be used.
9. To constraining the activity orientation, \_\_\_\_\_ attribute need to be set in AndroidManifest.xml file.
10. \_\_\_\_\_ menu displays information related to the current activity.
11. \_\_\_\_\_ menu displays information related to a particular view.
12. To assign a shortcut key to the menu \_\_\_\_\_ method can be used.
13. \_\_\_\_\_ view displays an analog clock with two hands.
14. \_\_\_\_\_ view displays the time digitally.
15. To enable web browser in your activity, \_\_\_\_\_ view can be used.
16. \_\_\_\_\_ method contains the hour and minute set by the user via hourOfDay and minuteOfHour arguments.
17. \_\_\_\_\_ view performs animation when switching between images.
18. To display an activity for the user to edit the preferences, \_\_\_\_\_ class can be used.

#### Unit 4: Data Persistence

**Que: 1 Answer the following question in short.**

1. Which URI provides the phone number of all contacts?
2. What is the permission you need to specify when writing file to external storage?
3. Name the methods that you need to override in your own implementation of a content provider.
4. What is the use of *SharedPreferences* class?
5. What do you mean by Android internal storage?
6. What do you mean by Android external storage?
7. Give the class names which are use to save data in to text file.
8. Write the location in an application where SQLite database saved.
9. What is content provider?
10. Write down the query string which will returns a list of all the internal images on the device.
11. Write down the query string which will returns of all calls registered in the call log.
12. Define managed cursor.
13. What do you mean by projection in the context of content provider?
14. Write down a method name to update an existing record from the content provider.
15. Write down a method name to delete an existing record from the content provider.
16. What is the use of res/raw folder?
17. Which of the method need to use to get the Resource object?
18. Which of the method is use to open the file content in the res/raw folder?

**Que: 2 Answer the following question in short.**

1. What is a Content Provider?
2. What special permission is needed to access the private user information provided by the Contacts content provider? Also write the code to start reading contact data from Contacts application.
3. Write snippet to set and get boolean preferences.
4. Write snippet to check media availability.
5. How to save simple data using SharedPreferences object?
6. Name the method that enables you to obtain the path of the external storage of an Android.
7. List out the content provider available in Android device.
8. Name the methods that you need to override to implement content provider based application.

9. How do you register content provider in your AndroidManifest.xml file?
10. How can you change the default name of the preference file?
11. Write the similarities between content provider and database.
12. Write the snippet to get Android device version.
13. Write the snippet to fetch contact id and contact name from the contact book.
14. Write the snippet to fetch contact in ascending order.
15. List out the method name, which need to be override to create your own content provider.
16. Using content provider, where you can store the data?
17. Write down the snippet to open the image file from res/raw folder.
18. Write down the snippet to create a student table in SQLite database.

**Que: 3 Answer the following question in details.**

1. Explain with example how SQL UNION query can be executed with.rawQuery() method?
2. Explain with example how SQLiteQueryBuilder can be used to build and execute INNER JOIN between two tables?
3. How ContentValues object can be used to insert firstname and lastname in authors table.
4. What is shared preferences? Explain methods for create, search, read, add, update and delete shared preference?
5. What is SQLite Database? Explain methods for creating, updating, and deleting and querying database records.
6. What is content provider? List useful built-in content providers with its purpose and explain any one of them in details.
7. Explain methods for inserting, updating, deleting and querying database records.
8. Demonstrate how we can create Private & Shared Preferences.
9. Write note on various Content providers.
10. Write code which will query the Browser content provider to find retrieve the top five most frequently visited bookmarked sites.
11. Write a snippet to write and read file in internal storage.
12. Write a snippet to write and read file in external storage.
13. How do you display the preference of your application using an activity?
14. Write the query to retrieve all contact from the Contacts application that contains the word "jack".
15. What is the use of PreferenceActivity? Write a code to show the use of it.
16. Write a code to save a string entered by the user to the device's internal storage.
17. How would you choose best storage option for your application?
18. List the static resources available in Android. Explain any one of them to get the file content.
19. List out and explain various parts of the URI in the context of content provider.
20. How will create your own content provider? Explain with an appropriate example.

**Que: 4 Select most appropriate answer from the given option.**

1. If my application has an option that enables user to specify the font size display in an application, which of the following storage you will use.
  - a. SQLite
  - b. SharedPreferences
  - c. External storage
  - d. Internal storage
2. If my application has an option that enables user to store students registration detail, which of the following storage you will use.
  - a. SQLite
  - b. SharedPreferences
  - c. External storage
  - d. Internal storage

3. If my application has an option that enables user to store images/audio/video file, which of the following storage you will use.
  - a. SQLite
  - b. SharedPreferences
  - c. External storage
  - d. Internal storage
4. Which of the following enables us to store data that is in name/value form?
  - a. SQLite
  - b. SharedPreferences
  - c. External storage
  - d. Internal storage
5. Which of the following method opens a named file for writing?
  - a. openFileOutput()
  - b. openFile()
  - c. open()
  - d. fileOpen()
6. Which of the following method returns the full path to the external storage?
  - a. getExternalStorageDirectory()
  - b. getExternalPath()
  - c. getsdCardPath()
  - d. getStoragePath()
7. Which of the following method is called when the database needs to be upgraded?
  - a. onCreate()
  - b. onUpgrade()
  - c. onChange()
  - d. onMake()
8. Which of the following method creates a new database if the required database is not present?
  - a. onCreate()
  - b. onUpgrade()
  - c. onChange()
  - d. onMake()
9. If we want to share the data among different application, which of the following storage can be used?
  - a. SharedPreference
  - b. ContentProvider
  - c. SQLite
  - d. SDCard
10. Which of the following is the standard prefix for the content provider?
  - a. content://
  - b. Content://
  - c. content:\\
  - d. Content://
11. Which of the following method returns the object of ContentResolver?
  - a. getContentResolver()

- b. getContent()
  - c. getResolver()
  - d. None of the above.
12. To receive a request from a client, which of the following methods of content provider is used?
- a. query()
  - b. getType()
  - c. getData()
  - d. findData()
13. Which of the following methods is called when provider is started?
- a. onCreate()
  - b. onStart()
  - c. onResume()
  - d. create()
14. Which of the following methods returns the MIME type of the data at the given URI?
- a. getMIME()
  - b. getType()
  - c. fetchType()
  - d. getMIMEType()
15. If we need to store ad-hoc data then which of the following options should we use?
- a. SQLite
  - b. SharedPreferences
  - c. External storage
  - d. Internal storage

**Que 5: Fill in the blanks.**

1. To save the single value user data \_\_\_\_\_ class object can be used.
2. To share data among activities in the same application \_\_\_\_\_ method can be used.
3. To access file in res/raw folder \_\_\_\_\_ method can be used.
4. To create a database helper class \_\_\_\_\_ class should extend.
5. To display a hierarchy of preferences to user \_\_\_\_\_ class is a specialized type of activity.
6. Android uses \_\_\_\_\_ class as a return value for query.
7. To read the contact, \_\_\_\_\_ permissions need to be set in AndroidManifest.xml file.
8. To retrieve a managed cursor, \_\_\_\_\_ method needs to be used.
9. To insert the record into the content provider \_\_\_\_\_ method needs to be used.
10. A lightweight mechanism known as \_\_\_\_\_ to save small chunks of data.
11. In Android relational database management system managed through \_\_\_\_\_ database.
12. The \_\_\_\_\_ method of the InputStreamReader object checks the number of characters read and returns -1 if the end of the file is reached.
13. To update a table in SQLite database, to store the name/value pair \_\_\_\_\_ class object can be used.
14. To move to the next row, call the \_\_\_\_\_ method of the Cursor object.
15. The \_\_\_\_\_ returns a list of bookmarks stored in the browser.

**Unit 5: Services and Android APIs****Que: 1 Answer the following question in short.**

1. Define Services.
2. What is the importance of settings permissions in app development?
3. Name the permission you need to declare in your AndroidManifest.xml file for receiving SMS messages.

4. Name the permission you need to declare in your AndroidManifest.xml file for HTTP connection.
5. What is WAP?
6. To send SMS, which permission you need to set?
7. List out the arguments of sendMessage() method.
8. Define PendingIntent.
9. Name the two location providers that you can use to obtain your location data.
10. What method is use for monitoring a location?
11. Write a methods name, which are use to set zooming in or out programmatically.
12. To display a map in your application which permission you need to be set.
13. Give the methods name which you need to override when the MapActivity extends.
14. which package can be used to access network resources?
15. To check the network state your application, whichof the permission need to be set?
16. Name the permission you need to declare in your AndroidManifest.xml filefor an HTTP connection.
17. Name the classes used fordealing with JSON messages.
18. Name the classes for performing background asynchronous tasks.
19. What is the use of JSONArray?
20. What is the return data type of getJSONObject() method?

**Que: 2 Answer the following question in short.**

1. What is the difference between IntentService and service?
2. Differentiate Activities from Services.
3. What is the difference between Service and Thread?
4. Write code snippet to retrieve IMEI number of Android phone.
5. What is needed by the application to send an SMS?
6. Explain function of Broadcasting intent.
7. List the permissions you need to declare in your AndroidManifest.xml file fro sending and receiving SMS messages.
8. List any two differences between Intent and PendingIntent.
9. Write a snipped code to send the SMS using intent.
10. Write a snipped which updates an Activity from a BroadcastReceiver.
11. Write a snipped to invoke an Activity from a BroadcastReceiver.
12. If you have embedded the Google Maps API into your Android application but it does not show the map when the application is loaded, what could be the likely reason?
13. State the difference between geocoding and reverse geocoding?
14. Write a snipped to displaying the map view in layout file.
15. Write snipped to animate a particular location.
16. Write a line of code to get the location of the map touched.
17. Write steps to get the MAP API key.
18. Write a function in android to check the network availability.
19. Write a code to download the binary data using web service.
20. State any two difference between XML and JSON services.

**Que: 3 Answer the following question in details.**

1. List permission required for following task
  - a. Send SMS
  - b. To access phone state Information
  - c. Add contact details
  - d. Write file to SD Card
  - e. To access online URL

- f. To dial number
- g. Read contacts
2. Write code snippet for following
    - Sending an SMS
    - Dial a number
  3. Explain Media Store Content Provider with example.
  4. What is Intent? How are they used to Broadcast and Receive Events?
  5. Describe Telephony API of Android and the classes used for the same?
  6. Write a code snippet to transfer data from one service to another service with possible validation.
  7. Explain how to configure service in AndroidManifest.xml file with example.
  8. Write a code snippet for sending an SMS with validation.
  9. Write a code snippet for dialling a number with validation.
  10. Write a code snippet to find out last known location with possible validation.
  11. Write a code snippet to display incoming SMS with contact number and text with validation.
  12. Explain how you can add Media support to application?
  13. Explain MediaStore content provider in detail. Also write a code which will query the MediaStore to retrieve the titles of all the audio files on the SD card of the handset and their respective durations.
  14. How do you notify an activity from a BroadcastReceiver?
  15. Write a code to get feedback after sending a message.
  16. Write an application in Android which preventing the messaging application from receiving a message.
  17. Write a code to download the text content from any URL.
  18. Write a code to accessing any web service using GET method.
  19. Write code to parse following content:
 

```
<string xmlns="http://www.webserviceX.NET">
<NewDataSet>
    <Table><Name>Afghanistan, Islamic State of</Name></Table>
    <Table><Name>Albania</Name></Table>
</NewDataSet>
```
  20. Write the code to parse the following JSON string:
 

```
{"earthquakes":[
    {"eqid":"2007hear","magnitude":8.4,"lng":101.3815,"src":"us","datetime":"2007-09-12
09:10:26","depth":30,"lat":-4.5172},
    {"eqid":"2007aqbk","magnitude":8,"lng":156.9567,"src":"us","datetime":"2007-04-01
18:39:56","depth":10,"lat":-8.4528},
    {"eqid":"2007hec6","magnitude":7.8,"lng":100.9638,"src":"us","datetime":"2007-09-12
21:49:01","depth":10,"lat":-2.5265}
]}
```

**Que: 4 Select most appropriate answer from the given option.**

1. Which of the following method is use to send SMS?
  - a. sendTextMessage()
  - b. sendText()
  - c. sendMessage()
  - d. sendSMS()
2. Which of the following method register a broadcast receiver dynamically?



- a. registerReceiver()
  - b. BroadcastReceiver()
  - c. registerBroadcast()
  - d. registerService()
3. Which of the following method is used to unregister a previously registered BroadcastReceiver?
    - a. unregisterReceiver()
    - b. unregisterBroadcast()
    - c. unregisterIntent()
    - d. unregisterService()
  4. Which of the following method you need to override within each BroadcastReceiver?
    - a. onReceive()
    - b. onGet()
    - c. onFind()
    - d. None of the above.
  5. Which of the following method sets the flag indicating that this receiver should abort the current broadcast?
    - a. abortBroadcast()
    - b. stop Broadcast()
    - c. destroy Broadcast()
    - d. close Broadcast()
  6. Which of the following method broadcast the given intent to all interested BroadcastReceiver?
    - a. sendBroadcast()
    - b. broadcast()
    - c. setBroadcast()
    - d. postBroadcast()
  7. Which of the following library is use to referee the map?
    - a. com.Google.android.maps
    - b. com.Google.android.map
    - c. com.android.map
    - d. com.Google.androidmap
  8. Which of the following class provides access to the Android location service?
    - a. LocationManager
    - b. Location
    - c. GoogleMap
    - d. LocationViewer
  9. Which of the following method returns true, if we are displaying routing information on the map?
    - a. isRouteDisplayed()
    - b. isRoute()
    - c. isRouteAvailable()
    - d. isRouteExists()
  10. If we want to display traffic conditions on the map, which of the following method need to be used?
    - a. setTraffic()
    - b. showTraffice()
    - c. displayTraffic()

- d. viewTraffic()
11. Which of the following class is used to established a HTTP connection.
- URLConnection
  - HttpURLConnection
  - URLConnection
  - HttpNetworks
12. Which of the following class is use to parse the XML result returned bythe web service?
- DocumentBuilder
  - Document
  - Parse
  - ParseXML
13. Whichof the following method creates a JSONArray with no values?
- JSONArray ()
  - JSONArray (Collection copyFrom)
  - JSONArray (JSONTokener readFrom)
  - JSONArray (String json)
14. Which of the following constant of LocationManager gives name of the GPS location provider?
- GPS\_PROVIDER
  - NETWORK\_PROVIDER
  - PASSIVE\_PROVIDER
  - PROVIDERS\_CHANGED\_ACTION
15. Which of the following constant of LocationManager gives name of the network location provider?
- GPS\_PROVIDER
  - NETWORK\_PROVIDER
  - PASSIVE\_PROVIDER
  - PROVIDERS\_CHANGED\_ACTION
16. Which of a following permission allows an app to access approximate location derived from network location sources such as cell towers and Wi-Fi?
- ACCESS\_COARSE\_LOCATION
  - ACCESS\_FINE\_LOCATION
  - ACCESS\_LOCATION\_EXTRA\_COMMANDS
  - ACCESS\_MOCK\_LOCATION
17. Which of the following application allows an app to access precise location from location sources such as GPS, cell towers, and Wi-Fi?
- ACCESS\_COARSE\_LOCATION
  - ACCESS\_FINE\_LOCATION
  - ACCESS\_LOCATION\_EXTRA\_COMMANDS
  - ACCESS\_MOCK\_LOCATION
18. Which of the following state of TelephonyManager specify the new call arrived and is ringing or waiting?
- CALL\_STATE\_RINGING
  - CALL\_STATE\_IDLE
  - CALL\_STATE\_OFFHOOK
  - None of the above.
19. Which of the following state of TelephonyManager specify the new call state idle?
- CALL\_STATE\_RINGING
  - CALL\_STATE\_IDLE

- c. CALL\_STATE\_OFFHOOK
  - d. None of the above.
20. Which of the following method parse the content of the given input source as an XML document?
- a. parse(String uri)
  - b. parse(InputStream is)
  - c. parse(InputSource is)
  - d. parse(InputStream is, String systemId)

**Que 5: Fill in the blanks.**

1. To send SMS programmatically, we need to use \_\_\_\_\_ class.
2. To obtain a SmsManager object we need to call \_\_\_\_\_ static method.
3. \_\_\_\_\_ is an Android component which allows you to register for system or application events.
4. To send the SMS programmatically \_\_\_\_\_ class object can be used.
5. To displaying the zoom control in map, \_\_\_\_\_ method needs to be use.
6. To sets the map mode to "satellite" mode \_\_\_\_\_ method need to be set.
7. To add markers in a map, we need to implement \_\_\_\_\_ class and override \_\_\_\_\_ method.
8. A View which displays a map is known as \_\_\_\_\_.
9. \_\_\_\_\_ class contains the zoomIn() and zoomOut() methods.
10. All Location API methods require the \_\_\_\_\_ and \_\_\_\_\_ permissions.
11. To removes all location updates for the specified pending intent, \_\_\_\_\_ method need to be called.
12. When the location has changed, \_\_\_\_\_ method will called.
13. The \_\_\_\_\_ interface provides the abstraction of an ordered collection of nodes.
14. The \_\_\_\_\_ represents a single node in the document tree.
15. To access information about the telephony services on the device \_\_\_\_\_ class object need to be created.
16. To work with Telephony Manager and to read the phone details we need to set \_\_\_\_\_ permission.

**Unit 6: Deploying an Application****Que: 1 Answer the following question in short.**

1. Which of the features of Eclipse to be used to export the application as an APK file?
2. Define android:versionCode, android:versionName attribute.
3. What android:label specifies?
4. Which attribute to be specified if application need a minimum version of the Android OS to run?
5. What is the use of adb.exe tool?
6. Using adb.exe, write down steps to install Android application to an emulator.
7. Using adb.exe, write down steps to uninstall Android application from an emulator.
8. Using DDMS tool in eclipse, write down steps to install Android application to an emulator.
9. Using DDMS tool in eclipse, write down steps to uninstall Android application from an emulator.
10. If we intend to charge for an Android application, how to set Merchant Account on market?
11. Where did Android Market go?
12. What do you mean by promotional assets in the context of application publication?
13. Write down the format of android:versionName attribute.
14. If application has a version name called "1.0.0", then for a small incremental update what should be the next version name?
15. What do you mean by digital certificate?

**Que: 2 Answer the following question in short.**

1. Write down some disadvantages of Android.
2. What is the importance of Android in the mobile market?
3. How do you generate a self-signed certificate for signing your Android application?
4. How do you configure your Android device to accept application from non-market sources?
5. List out the required attribute which must required to be set to publish an application on the Android market.
6. To publish an application on Android market, which are the attributes must require in AndroidManifest.xml file?
7. While signing your Android application, when to use “Use existing keystore” and when to use “Create new keystore”?
8. After signing your Android application, why we need to regenerate Google API key?
9. List out the compulsory information to publish an Android application.
10. To publish an application on market, write down specifications for the high-resolution icon.
11. List out the different ways to distribute an Android application.
12. Write down the snippet to set google map library in AndroidManifest.xml file.
13. How to set the validity period of the key that you will use to sign your applications?
14. Write down the steps to uninstall the installed application from an Android device.
15. After installation and long usages of an Android application, How to clear the saved data (i.e. SharedPreferences, database) from an Application?

**Que: 3 Answer the following question in details.**

1. What steps are required for publishing an Android application?
2. How to signed Android application? Explain with an appropriate example.
3. Write a code to retrieve the value of android:versionCode.
4. Write down steps to host your application on web server.
5. Write down steps to verify whether eclipse automatically signed your application or not.
6. After publication of application on Google play, if application source will be upgraded then which steps you will follow to update the same on Google play.

**Que: 4 Select most appropriate answer from the given option.**

1. Android Applications must be signed.
  - a. Within two weeks of installation
  - b. Never
  - c. Before they are installed
  - d. After they are installed
2. When you distribute your application commercially, you’ll want to sign it with your own key.
  - a. True
  - b. False
3. To sell and host android application on the Android market, we can apply one time fees of U.S. \_\_\_\_\_\$.
  - a. 20\$
  - b. 25\$
  - c. 30\$
  - d. 35\$
4. Which of the following debug keystore use by eclipse to sign your Android application?
  - a. debug.keystore
  - b. debug.key
  - c. keystore.debug
  - d. key.debug

5. To generate your own certificate, which of the following utility can be used provided by Java SDK?
  - a. Keytool.exe
  - b. Key.exe
  - c. tool.exe
  - d. keystore.exe
6. When we build an application in debug mode, which of the following utility is used by Android SDK?
  - a. Keytool
  - b. Toolkey
  - c. Debugtool
  - d. None of the above.