

SARDAR PATEL UNIVERSITY
MASTER OF COMPUTER APPLICATIONS
SEMESTER - V

COURSE PS05EMCA03 (Application Development for the Android Platform)
Friday November 2nd 2018

Time: 2:00 pm to 5:00 pm

Max. Marks: 70

Q-1 Choose the most appropriate option for each question:

[8]

1. Android is based on -
A) Linux compiler
B) Linux kernel
C) Modified Linux kernel
D) None of these
2. Which programming language is not an officially supported programming language for Android development?
A) Java
B) Dalvik
C) Kotlin
D) None of these
3. The mechanism for keeping Android application data secure is called -
A) Boxing
B) Wrapping
C) Unboxing
D) Sandboxing
4. Which among the following generates list items for populating a list view?
A) Adapter
B) Context menu
C) ArrayList
D) Cursor
5. Which of the following is not typically defined in XML files?
A) Layouts
B) Menus
C) Strings
D) Drawables
6. Which is the preferred unit for specifying sizes of views in Android?
A) dp
B) px
C) pt
D) None of these
7. Which of the following is not declared in the Android manifest file?
A) Application icon id
B) SQLiteOpenHelper
C) Broadcast receiver
D) Activity
8. Which tag is used in the Android manifest file for declaring the requirement of permissions?
A) <seeks-permission>
B) <needs-permission>
C) <uses-permission>
D) <permission>

Q-2 Answer the following questions (Any Seven):

[14]

1. Name the database management system and the graphics library used by Android.
2. Write the full forms of ADT and AVD.
3. When is an activity on the top of the activity stack and when does it stop being on the top of the stack?
4. What are the lifetimes in the Android activity lifecycle?
5. Why should we store all strings that may potentially be visible for the user in the strings resource file? How can we access a string defined in the string resource?
6. What is layout inflation? Which method is used to get a reference to a view defined in a layout?

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7. Write a statement for logging a message from application code so that it appears in Logcat.
8. What are the possible time duration values for which a toast is displayed?
9. Which events are invoked when a menu is created and when a menu item is clicked?

Q-3

- A. Draw a figure showing the Android activity lifecycle. Describe each event in the lifecycle in short. [6]
- B. List the types of resources in Android. What are the advantages of using resources? [6]

OR

- B. Why do we need to save and restore state in Android activities? Write the techniques used for saving and restoring activity state. Also write when Android does it automatically for us. [6]

Q-4

- A. Write a short note on the Activity class and its use in Android. [6]
- B. Explain database access in Android. [6]

OR

- B. Explain content providers and broadcast receivers in Android. [6]

Q-5

- A. Why should we make network request from a separate thread? Describe the class commonly used for making such a background request. [6]
- B. Write a short note on geolocation, positioning and location aware apps in Android. [6]

OR

- B. Explain in detail how we can show a list of items on the screen using ListView and other classes. [6]

Q-6

- A. Write a short notes on intents in Android. [6]
- B. Explain how can we generate a notification, send an SMS and check for availability of network connectivity. [6]

OR

- B. Explain event handling and the use of the UI thread in Android. List the common events handled by Android apps. [6]

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SARDAR PATEL UNIVERSITY
MASTER OF COMPUTER APPLICATIONS
SEMESTER - V

COURSE PS05EMCA03 (Application Development for the Android Platform)
Thursday 26th April 2018

Time: 11:00 am to 2:00 pm

Max. Marks: 70

Q-1 Choose the most appropriate option for each question:

[8]

1. Which virtual machine is **not** used by any version of Android?
A) ART
B) Dalvik virtual machine
C) JVM
D) ~~None of these~~
2. An Android application is only visible to the user between -
A) onStart() and onStop()
B) onResume() and onStop()
C) onResume() and onRestart()
D) onStart() and onPause()
3. Which of the following represents a screen for interacting with the user?
A) Page
B) ~~Activity~~
C) Layout
D) None of these
4. The sizes of views are determined by -
A) Activity
B) View itself
C) Page
D) Layout
5. Which of the following is **not** a resource folder?
A) layout
B) values
C) menu
D) ~~strings~~
6. Which database management system is used on the Android platform?
A) SQLite
B) ~~SQLite~~
C) SQLait
D) SQLaite
7. Which of the following class is used to play audio?
A) AudioPlayer
B) ~~Player~~
C) MediaPlayer
D) MusicPlayer
8. Which class is used to make a network request in the background?
A) AsyncTask
B) HTTPGetRequest
C) AsyncGetTask
D) HTTPTask

Q-2 Answer the following questions (Any Seven):

[14]

- Q-2 Answer the following questions (Any Seven):
1. Give at least two examples of Android versions with version number, version name and API level.
 2. Which IDEs can be used for developing Android applications?
 3. What are the advantages of using resources?
 4. Describe the Android permissions related to accessing secondary storage.
 5. Write the full forms of AVD and ADT.
 6. What is the use of accelerometers and e-compass in a smart phone?
 7. List animation techniques in Android.

8. Write a short code snippet for sending a text message.
9. Differentiate between GPS and A-GPS.

Q-3

- A. Write a short note on the history of the Android operating system. List its key characteristics. [6]
- B. Write a short note on Android resources. [6]

OR

- B. Explain the Android activity life cycle with the help of a figure. [6]

Q-4

- A. Explain any two Android layouts. [6]
- B. Explain the development of multiple-screen Android applications. [6]

OR

- B. Write a short note on intents. [6]

Q-5

- A. Explain database access in Android. [6]
- B. Explain how to access data from a server in an Android app. [6]

OR

- B. Explain the use of menus and context menus in Android. [6]

Q-6

- A. List the common contents of the Android manifest file. [6]
- B. List the permissions related to SMS, geolocation, network access and Bluetooth. [6]

OR

- B. Explain the use of adapters with an example. [6]

Permission, Android

Seat No. _____

Total number of printed pages: 2

SARDAR PATEL UNIVERSITY
MASTER OF COMPUTER APPLICATIONS
SEMESTER - V

COURSE PS05EMCA03 (Application Development for the Android Platform)
Wednesday November 15th 2017

Time: 10:00 am to 1:00 pm

Max. Marks: 70

Q-1 Choose the most appropriate option for each question:

[8]

1. What does a .dex file contain?
A) Dalvik virtual machine B) Dalvik bytecode
C) Dalvik source code D) None of these.
2. Android applications have little control over their -
A) Code B) Data
C) Life cycle D) Foreground Activity.
3. Which of the following is *not* an Android layout?
A) Vertical layout. B) Relative layout
C) Table layout D) None of these
4. Which of the following usually represents an action to be performed?
A) Broadcast receiver B) Content provider
C) Main activity D) Intent.
5. Which of the following resource folder will be used on a tablet in landscape mode?
A) layout-land-large B) large-land-layout
C) layout-large-land. D) land-large-layout
6. Which of the following corresponds to a where clause in a query?
A) Selection. B) Projection
C) Protection D) Cursor
7. Which of the following is *not* a built-in action in the Intent class?
A) ACTION_VIEW B) ACTION_SHOW,
C) ACTION_EDIT D) ACTION_DIAL
8. Which of the following class is used to perform operations in the background?
A) HTTPRequest B) HTTPGetRequest
C) AsyncTask D) AsyncTask.

Q-2 Answer the following questions (Any Seven):

[14]

1. Which two events are specifically designed for saving and restoring activity state?
2. Write the sequence of events that fire in the current activity when another full-screen activity comes in front of the current activity and then finishes (and the current activity is not killed).
3. What are the advantages of using resources?
4. Describe the Android permissions related to obtaining the current location of the device.
5. What are the two ways of capturing an image using the camera?
6. List the motion and orientation sensors commonly available in mobile devices.
7. List animation techniques in Android.

8. Write a short code snippet for sending a text message.
9. Give any two examples of using `getSystemService()`.

Q-3 Answer the following questions:

- A. Explain the Android activity life cycle with the help of a figure. [6]
- B. Write the steps for creating a new Android Studio project. Write a skeleton program for an Android activity. [6]

OR

- B. Write a short note on using menus in an Android application including necessary event handlers. [6]

Q-4 Answer the following questions:

- A. Explain different types of resources used in Android along with the advantages of their use. [6]
- B. Write a short note on intents. [6]

OR

- B. Write short notes on content providers and broadcast receivers. [6]

Q-5 Answer the following questions:

- A. Explain database access in Android. [6]
- B. Write the code snippets to play audio and video in an Android application. [6]

OR

- B. Write a program to make a GET request to a web server in the background. [6]

Q-6 Answer the following questions:

- A. List the common contents of the Android manifest file. [6]
- B. Explain how to test camera access, location access, telephony applications and SMS sending in the emulator. [6]

OR

- B. Explain the use of a ListView with the data stored in an ArrayList. Describe the resources that need to be created. [6]

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SARDAR PATEL UNIVERSITY
MASTER OF COMPUTER APPLICATIONS
SEMESTER - V

COURSE PS05EMCA03 (APPLICATION DEVELOPMENT FOR THE
ANDROID PLATFORM)

Saturday November 28th 2015

Time: 11:00 am to 2:00 pm

Max. Marks: 70

Q-1 Choose the most appropriate option for each question:

[8]

1. Which of the following is a valid Android API level?
A) 5
B) 5.1
C) Lollipop
D) None of these
2. Which virtual machine was used with Android till the KitKat version?
A) Davlik
B) Dalvik
C) Davlic
D) Dalvic
3. Which of the following is *not* an Android view?
A) TextView
B) TextBox
C) ToggleButton
D) ImageButton
4. Which of the following layouts can have horizontal or vertical orientation?
A) RelativeLayout
B) GridLayout
C) TableLayout
D) LinearLayout
5. Which of the following represents a screen on the Android device?
A) Screen
B) Form
C) Activity
D) Action
6. Which of the following is a link between a data model and a ListView?
A) ContentProvider
B) SQLiteOpenHelper
C) LoaderManager
D) Adapter
7. Which of the following sensor can be used to access motion data?
A) Magnetometer
B) Accelerometer
C) Compass
D) Proximity sensor
8. Use of which of the following may incur data charges?
A) A-GPS
B) GPS
C) LocationListener
D) None of these

Q-2 Answer the following questions (Any Seven):

[14]

1. Write the full forms of ADT and APK.
2. What is layout inflation? Which kind of files are inflated by an inflater?
3. Give reasons for using resources in Android app development.
4. What are broadcast receivers? What is their use?
5. What is the UI thread? What care should be taken when coding event handlers that run on the UI thread?
6. What is SQLite? What advantages does it offer?

7. Write a code snippet to play an audio.
8. Name any two animation techniques in Android. Explain in one or two sentences each.
9. Write a code snippet for initiating a telephone call.

Q-3 Answer the following questions:

- A. Explain in detail the process of developing an Android application using Android Studio or Eclipse. [6]
- B. Explain the contents of the Android manifest file. [6]

OR

- B. Explain different layouts in Android. [6]

Q-4 Answer the following questions:

- A. Write a short note on the use of intents in Android. [6]
- B. Write a short note on writing Android apps that adapt to different screen sizes and locales (languages). [6]

OR

- B. Explain the use of menus, context menus and action bar in brief. [6]

Q-5 Answer the following questions:

- A. Explain database access in Android. [6]
- B. Explain content providers in Android. [6]

OR

- B. Explain the different technologies for obtaining the current location of the mobile device. Give advantages and disadvantages of each. [6]

Q-6 Answer the following questions:

- A. Explain the sending and receiving of text messages (SMS). [6]
- B. Explain motion tweening in Android. [6]

OR

- B. Explain the use of the AsyncTask class in the Android SDK. [6]

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G. H. Patel P. G. Department of Computer Science and Technology
Master of Computer Applications (MCA)
MCA-V Internal Examinations
EMCA03 Application Development for the Android Platform
Monday, 22nd September, 2014

Time: 2:00 pm to 3:30 pm

Max. Marks: 30

Q-1 Choose the most appropriate option for each question: [4]

1. Which of the following events cannot immediately follow the onPause event in the lifecycle of an activity?

- | | |
|-------------|-------------|
| A) onStart | B) onResume |
| C) onCreate | D) onStop |

2. Which graphics library is used by Android?

- | | |
|----------|------------|
| A) AWT | B) DirectX |
| C) Swing | D) OpenGL |

3. Which of the following classes allows data to be accessed through URIs?

- | | |
|-------------------------|---------------------|
| A) SQLiteDatabaseHelper | B) Content Provider |
| C) LoaderManager | D) CursorLoader |

4. Which of the following classes has a method called setPositiveButton()?

- | | |
|----------------|------------------------|
| A) Dialog | B) Dialog.Builder |
| C) AlertDialog | D) AlertDialog.Builder |

Q-2 Answer the following questions (Any Three): [6]

1. Write a code snippet showing how to use an ArrayAdapter with a ListView.
2. List the main criteria on which an intent filter usually filters intents.
3. Write a code snippet for setting a label in a TextView at run time.
4. Write code snippets to show and hide a TextView.

Q-3 Answer the following questions:

- A. Write sample code for converting a string into an array of JSON objects. [5]
- B. Explain the use of the AsyncTask class in Android. Explain its methods. [5]

OR

- B. Write sample code for generating notification with buttons. [5]

Q-4 Answer the following questions:

- A. Explain in a step-by-step manner how Android apps developed in Java are built, installed and executed. Describe the use of XML files in Android. [5]

- B. Describe the process of developing apps that adapt to different screen sizes and locales. [5]

OR

- B. List the contents of the AndroidManifest.xml file. [5]

G. H. Patel P. G. Department of Computer Science and Technology
Master of Computer Applications (MCA)
MCA-V Internal Examinations
PS05EMCA03 Application Development for the Android Platform
Tuesday, 10th September, 2013

Time: 11:00 am to 12:30 pm

Max. Marks: 30

- Q-1** Answer the following questions in one sentence each: [10]
- i. Android is a product of which alliance?
 - ii. Which virtual machine is used by Android?
 - iii. Which database management system is used by Android?
 - iv. Which graphics library is used by Android?
 - v. Which is the SDK level of the latest released version of Android?
 - vi. What is the full form of DDMS?
 - vii. What is an activity?
 - viii. What is the process of generating views at runtime from an XML layout file called?
 - ix. What are floating messages that appear on the mobile screen for a brief duration called?
 - x. Which Android class is used for populating a ListView dynamically using data from a data model?
- Q-2 a.** Explain the concept and use of intents in Android with sample code. Also give code example of passing data via an intent and retrieving the same in the receiving activity. [4]
- b.** Answer ANY TWO from the following: [6]
- i. Write a note on the Activity Lifecycle in Android.
 - ii. Explain in brief what services, content providers and broadcast receivers are.
 - iii. Give an outline of how to run code asynchronously using AsyncTask. Why should anyone want to do that?
- Q-3** Answer the following questions in brief (ANY FIVE): [10]
- i. What is a POJO class? What should it contain?
 - ii. How do we obtain a reference to an EditText declared in a layout? How do we assign its text contents to a string variable?
 - iii. Which method is called when a menu item is selected? Write a short sample of it.
 - iv. How do we use a context menu in our activity?
 - v. List the main contents of an SQLiteOpenHelper class.
 - vi. What are the advantages of using LoaderManager and CursorLoader?
 - vii. What are the reasons for the use of resources in Android?

G. H. Patel P. G. Department of Computer Science and Technology
Master of Computer Applications (MCA)
MCA-V Internal Examinations (Retest)
PS05EMCA03 Application Development for the Android Platform
Friday, 11th October, 2013

Time: 12:15 pm to 1:45 pm

Max. Marks: 30

- Q-1** a. Write key characteristics of the Android platform. [4]
b. Write a note on the Android development platform. [3]
c. Discuss the different components used in developing an Android application using Eclipse. [3]
- Q-2** a. Write sample code for invoking one activity from another passing some data. [4]
b. Write a note on the Activity Lifecycle in Android. [3]
c. Explain different types of resources in Android. [3]
- Q-3 Answer the following questions in brief (ANY FIVE):** [10]
i. What is an adapter? What does it do?
ii. Where do we declare the permissions needed by our application? Give an example of a permission.
iii. How do we use a context menu in our activity?
iv. Which three methods must be implemented for implementing the LoaderCallbacks interface?
v. What is AsyncTask? What is its use?
vi. Which classes from the Android SDK do we use for making HTTP requests?
