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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(P.T.0)

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]**

<div align="center">OR</div>

    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]**

<div align="center">OR</div>

    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]**

<div align="center">OR</div>

    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]**

<div align="center">OR</div>

    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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<div align="center">②</div>