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Paper Id: : 110719

Roll No: Subject Code:NCS075

## B TECH (SEM-VII) THEORY EXAMINATION 2018-19 ANDROID OPERATING SYSTEM

Time: 3 Hours Total Marks: 100

**Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.

**2.** Any special paper specific instruction.

#### **SECTION A**

# 1. Attempt all questions in brief.

 $2 \times 10 = 20$ 

- a. Write down the main components that can be used within an Android application.
- b. What do you mean by Android Debug Bridge (adb) in Android?
- c. Discuss the role of Intents in Android.
- d. When we implement the concept of Fragments in Android Development?
- e. Which class allows recording of audio and video files on an Android device?
- f. List out the various valid video codec supported by Android.
- g. What do you mean by XML Parsing?
- h. Which class manages the WiFi connectivity functionality in Android?
- i. What is meant by Touch Gestures in Android?
- j. List out the basic touch mechanisms used for Gesture.

#### SECTION B

### 2. Attempt any three of the following:

 $10 \times 3 = 30$ 

- a. Discuss the Activity Software Stack and Activity States with the help of diagram.
- b. Explain the concept of Adapters and Data Binding used in Android Application Development.
- c. Discuss the use of Media Player class for playing audio/video with various transitions and methods with the help of an example.
- d. Which XML Parser is used in Android? Explain the various steps of using it with an example.
- e. How do we detect the common Gestures in Android? Explain its phases.

# SECTION C

### 3. Attempt any *one* part of the following:

 $10 \times 1 = 10$ 

- (a) What are the various layouts used for Android UI designing. Explain with UI code.
- (b) Discuss in detail about the Android Software Stack framework with diagram.

### 4. Attempt any *one* part of the following:

 $10 \times 1 = 10$ 

- (a) Describe Intents and its types used in Android. Also discuss the role of Broadcast Receivers in Android Development.
- (b) Discuss the various types of Views used for Android Application Development with UI code.

#### **5.** Attempt any one part of the following:

 $10 \times 1 = 10$ 

- (a) Explain the process of using Camera for taking and process images in Android with various classes and methods. Discuss with an example.
- (b) How the recording of videos in Android done using Media Recorder class & its methods. Explain with an example.

#### 6. Attempt any one part of the following:

 $10 \times 1 = 10$ 

- Explain the working with WiFi in Android. Also discuss how do we create and manage a (a) WiFi Configurations in Android.
- Write the code to build an Android Application to send Email by invoking the built-in (b) Email application provided by Android.

#### 7. Attempt any one part of the following:

 $10 \times 1 = 10$ 

- NA.Dec. 2018 13:35:31 1 1 1 55.243.94 How do we detect gestures that involve multiple pointers? Also discuss how do we (a) manage touch events in a View Group?
- Explain Scrolling and its types. How do we animate a Scroll Gesture? (b)