

# ASSIGNMENT 1

## PART – A: Android Operating System & Development Environment

**Q1.** Define **Android Operating System**. Explain why Android is called an open-source platform.

**Q2.** Draw and explain the **Android Architecture** with its layers.

**Q3.** Explain the role of the following Android architecture layers:

- a) Linux Kernel
- b) Libraries
- c) Android Runtime
- d) Application Framework

**Q4.** What is the **Open Handset Alliance (OHA)**? Explain its objectives.

**Q5.** Write a short note on **Dalvik Virtual Machine (DVM)**. How is it different from JVM?

**Q6.** List and explain the major **features of Android OS**.

**Q7.** Explain the **evolution of Android versions** (any five versions with features).

**Q8.** What is **Android SDK**? List its main components.

**Q9.** Explain **Android Development Tools (ADT)**. Why are they important for developers?

**Q10.** What is an **Android Virtual Device (AVD)**? Explain its purpose and advantages.

## PART – B: Android Development Environment & Project Structure

**Q11.** Explain the **Android Development Environment** setup using Android Studio.

**Q12.** Write the **directory structure of an Android application** and explain each folder.

**Q13.** What is the **AndroidManifest.xml** file? Explain its importance.

**Q14.** List and explain any **five elements** used in the Android Manifest file.

## PART – C: Android Components

**Q15.** What is **Context** in Android? Explain its types with examples.

**Q16.** Explain **Activity** lifecycle with a neat diagram.

**Q17.** What is an **Intent**? Differentiate between **Explicit Intent** and **Implicit Intent**.

**Q18.** Explain **Service** in Android. Write types of services.

**Q19.** What is a **Broadcast Receiver**? Explain its working with an example.

## **PART – D: Resource Handling & Localization**

**Q20.**

a) Explain **Android Resources**: String, Color, Drawable, Style

b) What is **Theme Localization**? Explain how to prepare an Android application for localization.