



GISHARI COLLEGE

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REG NO: 25RP32679

DEPARTMENT: EEE

OPTION: ETT

MODULE CODE: ETTCT601

MODULE NAME: CELL PHONE SYSTEM AND TV RECEIVER MAINTENANCE

ASSIGNMENT: ONE

MODULE CREDITS: 12

Q1.Explain the operating system of mobile phone including it's different models, the layout of it's interface and it's main functions.

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Mobile operating systems (Mobile OS): manage mobile gadgets like phones and tablets. These systems run apps. They are not like desktops as mobiles have different needs. An operating system (OS) for mobile devices manages the basic functions. It runs apps, controls memory, and connects to networks. These systems provide an easy-to-use interface.

Types of Mobile Operating System

- **Android:** The most widely used, open-source platform developed by Google for touchscreens.
- **iOS:** Apple's proprietary, closed-source system built exclusively for the iPhone.
- **Harmony OS:** Huawei's cross-device system designed to connect phones, wearables, and smart appliances.
- **Kai OS:** A lightweight platform that brings internet apps and 4G to non-touchscreen keypad phones.
- **Hyper OS:** Xiaomi's system built to integrate smartphones, smart home tech, and electric vehicles.
- **Tizen:** A Linux-based system developed by Samsung, now used primarily for smart TVs.
- **Wear OS:** Google's specialized Android platform designed specifically for smartwatches.
- **watch OS:** Apple's dedicated, proprietary software built only for the Apple Watch.

https://en.wikipedia.org/wiki/Mobile_operating_system

<https://www.geeksforgeeks.org/operating-systems/what-is-a-mobile-operating-system/>

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The Interface Layout

The User Interface (UI) is the visual layer designed for touchscreen interaction. [1]

- **Lock Screen:** The initial security barrier displaying time, notifications, and biometric prompts.
- **Home Screen:** The primary hub containing app icons, folders, and widgets.
- **Status Bar:** The top strip showing time, battery levels, and signal strength.
- **Notification Shade:** A pull-down menu for alerts and quick-setting toggles.
- **Navigation Bar:** The bottom area utilizing gestures or buttons to go back, home, or switch apps.
- **App Drawer:** A central menu or library housing all installed applications.
- **Dock:** A permanent row of favorite apps at the bottom of the screen

Core Functions

- **Process Management:** Allocates CPU power to run multiple applications simultaneously.
- **Memory Management:** Distributes RAM efficiently and closes background tasks when space is low.
- **Hardware Interfacing:** Controls physical components like the camera, GPS, and sensors.
- **File System Control:** Organizes, saves, and retrieves data stored on the device.
- **Network Connectivity:** Coordinates wireless communication, including cellular data, Wi-Fi, and Bluetooth.
- **User Interface Hosting:** Renders the visual elements you touch and interact with daily.
- **Security & Permissions:** Enforces sandboxing and restricts app access to sensitive data like contacts.
- **Power Management:** Optimizes battery consumption by regulating processor speed and screen brightness.

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