**Matric No: 19/69/0053**

**Department: Computer Science (HND1)**

**Course Title: Operating System I**

**Course Code: COM311**

Question 1

Write a note of (5) Mobile Operating System that are not common?

1. **Bada (Samsung Electronics):** Bada is a Samsung mobile operating system that was launched in 2010. The Samsung wave was the first mobile to use the bada operating system. The bada operating system offers many mobile features, such as 3-D graphics, application installation, and multipoint-touch.
2. **Harmony OS:** The harmony operating system is the latest mobile operating system that was developed by Huawei for the use of its devices. It is designed primarily for IoT devices.
3. **Palm OS:** The palm operating system is a mobile operating system that was developed by **Palm Ltd** for use on personal digital assistants (PADs). It was introduced in **1996**. Palm OS is also known as the **Garnet OS**.
4. **WebOS (Palm/HP):** The WebOS is a mobile operating system that was developed by **Palm**. It based on the **Linux Kernel**. The HP uses this operating system in its mobile and touchpads
5. **KaiOS:** An emerging mobile operating system designed for feature phones, providing a simplified smartphone-like experience.

Question 2

Identify and discuss the features of in uncommon Mobile OS above?

1. **App Ecosystem:** A platform for developers to create and distribute applications. App stores, such as the Google Play Store for Android and the Apple App Store for iOS, provide access to a wide range of apps.
2. **Security Features:** Built-in security measures, such as password protection, biometric authentication (e.g., fingerprint or facial recognition), and encryption to safeguard user data and privacy.
3. **Customization:** Personalization options, including wallpapers, themes, and widgets, allowing users to tailor their device's appearance to their preferences.
4. **Connectivity:** Support for various connectivity options such as Wi-Fi, Bluetooth, NFC, and mobile data networks to facilitate communication and data exchange.
5. **File Management:** File browsers and management tools to organize and navigate through the device's storage.
6. **Accessibility Features:** Options for users with disabilities, including screen readers, magnification, and other accessibility settings.
7. **Power Management:** Battery optimization features, including power-saving modes and background app restrictions to extend battery life.
8. **Multitasking and memory management:** Multitasking and memory management are the parts of the OS that allow the device to run multiple applications and processes simultaneously and efficiently.
9. **Location Services:** GPS and location-based services for mapping, navigation, and location-aware applications.
10. **Notifications:** Systems for alerting users about messages, updates, and other events. Notifications are typically displayed on the lock screen or in a dedicated notification center.

Question 3

Make full comparism between Stand-Alone OS and Mobile OS?

1. Primary Use Cases:

* **Standalone Operating System:** Primarily used for a wide range of applications, including business productivity, gaming, content creation, and software development.
* **Mobile Operating System:** Focused on communication, web browsing, multimedia consumption, social media, and a variety of mobile applications.

1. Portability and Mobility:

* **Standalone Operating System:** Generally used in fixed locations, such as homes or offices, and lacks the portability associated with mobile devices.
* **Mobile Operating System:** Emphasizes portability and mobility, allowing users to carry and use their devices virtually anywhere.

1. Application Ecosystem:

* **Standalone Operating System:** Offers a wide range of applications, including productivity software, games, and specialized applications, often obtained from various sources.
* **Mobile Operating System:** Has a dedicated app ecosystem, usually accessible through centralized app stores like the Apple App Store or Google Play Store.

1. Form Factor:

* **Standalone Operating System:** Designed for devices with larger form factors, such as desktop computers with monitors, keyboards, and mice.
* **Mobile Operating System:** Tailored for smaller, portable devices with touchscreens, and optimized for on-the-go use.

1. Hardware Requirements:

* **Standalone Operating System:** Generally requires more powerful hardware specifications, including a more robust processor, more memory, and storage capacity.
* **Mobile Operating System:** Designed to run on more energy-efficient and compact hardware, making it suitable for mobile devices with limited resources.