Class 8 Ch-1
Operating System and GUI

A. Tick the correct option

1. ------------------is the interface between the user and the hardware.
   ✓ **a. Operating system**
   Explanation: The operating system (OS) acts as an intermediary between the user and the computer hardware, managing resources and providing a user interface.

2. **Which of the following helps other software to run on the computer?**
   ✓ **c. Operating system**
   Explanation: The OS provides essential services that allow other software, such as application programs, to function properly.

3. **The other name for a CUI is-------------**
   ✓ **c. CLI**
   Explanation: CUI (Character User Interface) is also known as CLI (Command Line Interface), where users interact with the system through text-based commands.

4. **Which of the following is located on the right side of the taskbar?**
   ✓ **b. Notification area**

5. ------------------ **button minimizes all the currently opened program windows to view the desktop.**
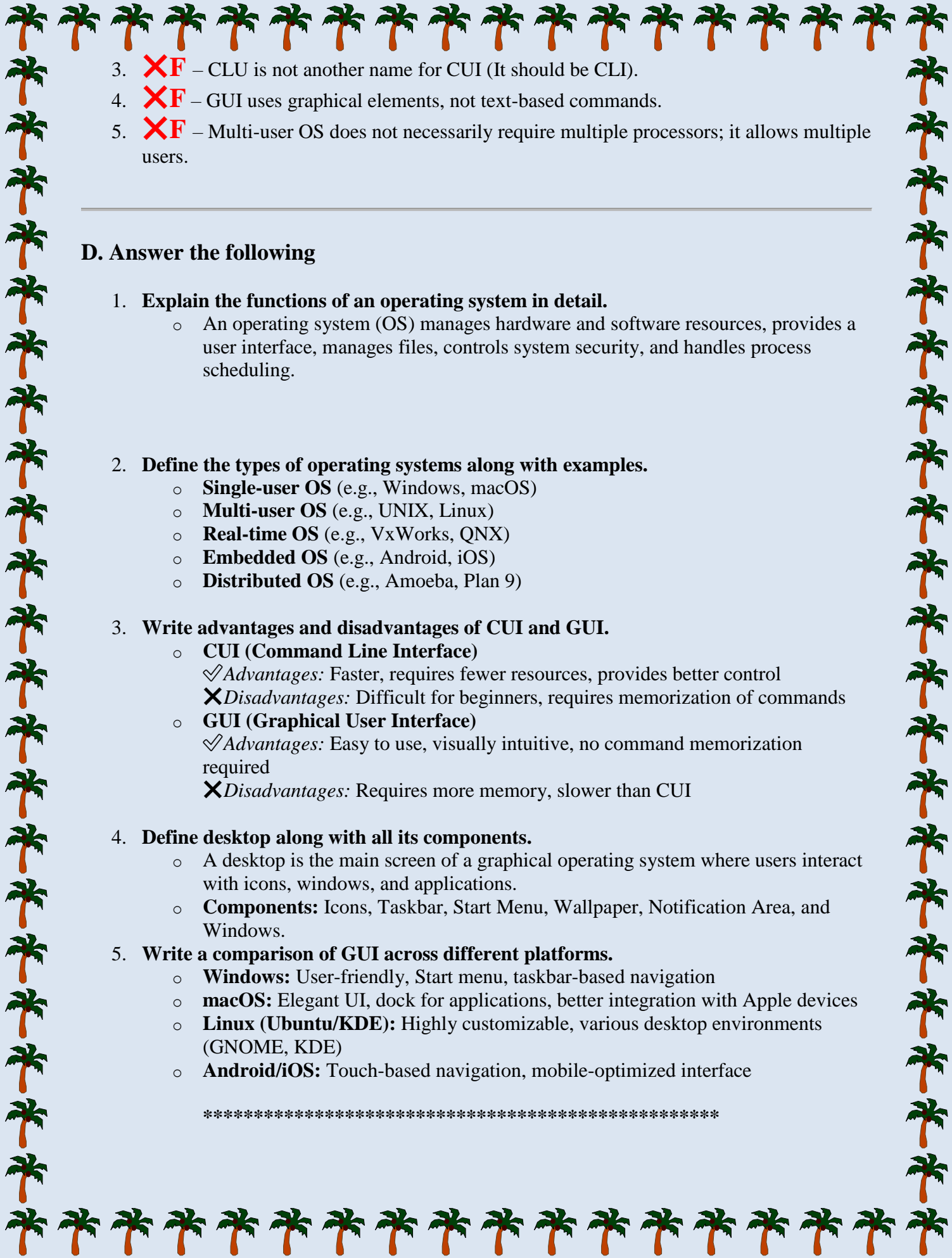   ✓ **b. Peek**

B. Fill in the blanks

1. Operating system works as the **Manager** for a computer.
2. Windows is an example of **Graphical** user interface.
3. CUI uses **Text** based commands to operate the working of a computer.
4. A **Single-user** operating system allows only one user to use the computer at a time.
5. The **Search** bar helps you to find any application you want to find.

C. Write T for true and F for false

1. ✓ **T** – A computer system is made of hardware and software.
2. ✓ **T** – Operating system manages devices connected with the computer.

3. ✖**F** – CLU is not another name for CUI (It should be CLI).
4. ✖**F** – GUI uses graphical elements, not text-based commands.
5. ✖**F** – Multi-user OS does not necessarily require multiple processors; it allows multiple users.

D. Answer the following

1. **Explain the functions of an operating system in detail.**
   - An operating system (OS) manages hardware and software resources, provides a user interface, manages files, controls system security, and handles process scheduling.

2. **Define the types of operating systems along with examples.**
   - **Single-user OS** (e.g., Windows, macOS)
   - **Multi-user OS** (e.g., UNIX, Linux)
   - **Real-time OS** (e.g., VxWorks, QNX)
   - **Embedded OS** (e.g., Android, iOS)
   - **Distributed OS** (e.g., Amoeba, Plan 9)

3. **Write advantages and disadvantages of CUI and GUI.**
   - **CUI (Command Line Interface)**
     ✅*Advantages:* Faster, requires fewer resources, provides better control
     ✖*Disadvantages:* Difficult for beginners, requires memorization of commands
   - **GUI (Graphical User Interface)**
     ✅*Advantages:* Easy to use, visually intuitive, no command memorization required
     ✖*Disadvantages:* Requires more memory, slower than CUI

4. **Define desktop along with all its components.**
   - A desktop is the main screen of a graphical operating system where users interact with icons, windows, and applications.
   - **Components:** Icons, Taskbar, Start Menu, Wallpaper, Notification Area, and Windows.
5. **Write a comparison of GUI across different platforms.**
   - **Windows:** User-friendly, Start menu, taskbar-based navigation
   - **macOS:** Elegant UI, dock for applications, better integration with Apple devices
   - **Linux (Ubuntu/KDE):** Highly customizable, various desktop environments (GNOME, KDE)
   - **Android/iOS:** Touch-based navigation, mobile-optimized interface

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