Exercise

⊘ Multiple Choice Questions (MCQs) – Answers with Explanation

1. What is the primary function of an operating system?

★ b) To manage hardware resources and provide a user interface
 ★ Explanation: The operating system acts as a bridge between the user and hardware. It manages memory, processes, storage, and input/output devices while offering a GUI or CLI to interact with the system.

2. Which software is used to enhance system performance and security?

∅ b) Utility software

Explanation: Utility software includes tools like antivirus programs, disk cleaners, and defragmenters that help maintain system health and performance.

3. What role do device drivers play in a computer system?

⋄ b) Facilitate communication between hardware devices and the operating system

Explanation: Device drivers translate OS commands into hardware instructions so devices like printers, keyboards, and graphics cards can function correctly.

4. Which of the following is an example of application software?

(a) Microsoft Word

Explanation: Microsoft Word is designed for creating and editing documents, which is a specific task for users. It is not related to hardware management.

5. What is the main purpose of a spreadsheet software?

∅ b) To organize and analyze data

Explanation: Spreadsheet software like Microsoft Excel is used for managing numerical data, performing calculations, and creating charts.

6. How does utility software differ from application software?

⟨⟨ a⟩ Utility software manages hardware, while application software performs specific tasks for users.

Explanation: Utility software focuses on system maintenance, while application software is used for productivity or entertainment tasks.

7. Which type of software would you use to design a logo?

(c) Graphic design software

Explanation: Graphic design software like Adobe Illustrator or CorelDRAW is used to create visual content, including logos.

8. What is the function of system software?

∅ a) To facilitate communication between hardware and software
 Explanation: System software includes OS, drivers, and utilities that make the hardware usable by coordinating with application software.

9. Why are operating system updates important?

Explanation: Updates fix vulnerabilities, improve performance, and add features, ensuring the system runs smoothly and securely.

10. What is a common task you can perform using word processing software?

Explanation: Word processing software like MS Word is designed to handle written content, including formatting and printing documents.

Short Questions – Answers

1. Define system software and provide two examples.

Answer: System software controls and manages the basic functions of a computer. **Examples:** Operating System (e.g., Windows), Device Drivers.

2. Explain the primary functions of an operating system.

Answer: The OS manages hardware resources, runs applications, handles input/output operations, and provides a user interface.

3. What is utility software and why is it important?

Answer: Utility software helps maintain and optimize system performance, such as antivirus programs, disk cleanup, and backup tools.

4. Describe the role of device drivers in a computer system.

Answer: Device drivers allow the operating system to communicate with hardware devices like printers and keyboards.

5. Differentiate between system software and application software with examples.

Answer: System software manages system resources (e.g., Windows), while application software performs user tasks (e.g., MS Word).

6. What are the main functions of spreadsheet software?

Answer: Organizing, analyzing, and calculating data using formulas, functions, and charts.

7. How can graphic design software be used in the field of education?

Answer: It is used to create visual content for presentations, e-learning materials, and educational posters.

8. What is the significance of data backups and how can they be performed?

Answer: Backups prevent data loss and can be done using external storage or cloud-based tools like Google Drive.

Long Questions – Answers

1. Discuss the importance of system software in a computing system.

Answer:

System software is essential for the basic functioning of a computer. It acts as a bridge between the hardware and the user. The operating system controls hardware resources and allows other software to run. Device drivers help hardware and software communicate effectively. Utility software ensures the system runs efficiently by handling security, performance, and maintenance tasks. Without system software, a computer would not operate.

2. Describe the roles of operating systems, utility software, and device drivers, providing examples of each.

Answer:

- Operating System: Manages memory, processes, and input/output devices (e.g., Windows, Linux).
- Utility Software: Performs tasks like virus scanning, data backup, and disk defragmentation (e.g., Avast, Disk Cleanup).
- Device Drivers: Enable communication between hardware and OS (e.g., printer driver, graphics driver).
 - Together, they ensure smooth computer operation and user interaction.
- 3. Explain the differences between system software and application software. Answer:
 - System Software: Controls system operations and hardware (e.g., Windows OS, BIOS).
 - Application Software: Performs tasks for users like document editing or browsing (e.g., MS Word, Google Chrome).
 System software runs in the background, while application software is used for specific user activities.
- 4. Describe the process of using utility software to optimize system performance and maintain security. Provide detailed steps and examples of common utility tools.

 Answer:

To optimize system performance and ensure security:

- Step 1: Use a disk cleanup tool to remove unnecessary files.
- Step 2: Run a disk defragmenter to organize files on hard drives.
- Step 3: Use antivirus software to scan and remove malware.
- Step 4: Update software using system update utilities.
- Step 5: Use backup software to protect important files.
 Examples: CCleaner, Windows Defender, Avast, System Restore, Acronis Backup.
- 5. Explain how to install, update, and troubleshoot device drivers for hardware components.

Answer:

- o **Installation:** Use a CD provided by the manufacturer or download from the official website
- Update: Use "Device Manager" in Windows, right-click the device, and select
 "Update Driver."

- Troubleshoot: Check for device conflicts in Device Manager. Uninstall and reinstall the driver or download the latest version from the internet.
 Proper driver installation ensures that devices like printers, sound cards, and network adapters work correctly.
- 6. Discuss the main functions of commonly used application software, such as word processing, spreadsheet, presentation, and graphic design applications.
 Answer:
 - Word Processing Software (e.g., MS Word): Used for writing and editing text documents.
 - Spreadsheet Software (e.g., MS Excel): Organizes data in rows/columns and performs calculations.
 - Presentation Software (e.g., MS PowerPoint): Creates slideshows for lectures or business meetings.
 - Graphic Design Software (e.g., Adobe Photoshop): Used to create and edit images, design logos, and educational visuals.
 These tools enhance productivity, education, and communication.