Chapter = 02
Fundamentals Of Operating System

Q1   Define Operating System. Give three examples of operating systems

Operating System

An Operating System is a software which performs all the basic tasks like booting the computer, file management, memory management, process management, and controlling peripheral devices such as hard disk, printer, etc. It manages computer resources efficiently.

Examples

Windows

Linux

Android

Mac

iOS

Q2   List the functions of an OS? Write briefly about any two

Function Of Operating System pakcity.org

Operating system manages every activity of a computer. It is the master control program that provides an interface for a user to communicate with computer. System software and application software run on operating system. Operating System performs the following functions.

1. **Booting**

   Booting is a process of starting the computer operating system. It checks the computer resources and makes it ready to perform different tasks.

2. Resource Management

Operating system manages all the hardware and software resources. This includes allocation and de-allocation of processor, memory, access to shared cache memory and access to network resources.

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Q3. Differentiate between CLI and GUI. Write any two benefits of each.

Command Line Interface (CLI)	Graphical User Interface (GUI)
It is a screen or text-based representation in which the user types the commands on place called prompt to operate the computer.	A GUI provides a user friendly environment where user can interact with computers through graphical objects.
Command contains string of characters.	It contains menus, icons, buttons and other graphical objects.
CLI is difficult to use because the user has to remember the commands and their syntaxes.	It is easy to use as users are supposed to just click on a picture to run commands without memorizing them.
It is fast in use because text mode takes less resources	GUI is as graphical mode takes more memory and resources.
Personal computers including MS-DOS and Apple DOS are the example of CUI	Windows and IOS are the example of GUI.

Q4. Which resources are managed by Resource Management function of OS?

Ans. Resource Management Operating system manages all the hardware and software resources. This includes allocation and de-allocation of processor, memory, access to shared cache memory and access to network resources.

Q5. What is the difference between single user and multi user OS?

<u>Single User Operating System</u>	<u>Multi-User Operating System</u>
In a Single User Operating System, a single user can access the computer system at a time.	A Multi-User Operating System allows multiple users to access the computer at same time.
It's the most common system used for home computers	It's the most common system used for business computers
DOS for PCs and Windows 98 for PCs are example of single user operating system.	Linux and UNIX are the most common examples of the multi-user operating system.

Q6. What is the purpose of office automation software? List the programs available in MS Office and write why each program is used?

Purpose of office automation

Office Automation software is the most common software package that we install on our computers. Office Automation software is a group of computer programs that help users in their daily work. Generally, you will find MS Office in school lab, offices and other places. MS Office contains

- MS Word use for word processor
- MS Excel use for making Spreadsheet
- MS PowerPoint is use for making multimedia presentation
- MS Access use for doing database management
- MS Outlook is and email application

Q7. What is the major difference between Soft Real Time and Hard Real Time systems?

Soft Real Time and Hard Real Time

A Real Time Processing operating system is a time bound operating system which has fixed time limit.
whereas A Hard Real Time System guarantees that critical tasks complete on time. Missile systems and Air Traffic Control System are best examples of Hard Real Time System

Q8. Why it is important to install an antivirus?

Installing Antivirus
To keep our computer secure and free from viruses, we need to install an antivirus software. A number of free antivirus software are available online. AVG, Avast, Avira and Kaspersky are some of the free antivirus software.

Q9. what are the major steps involve to install windows

Major Steps for Installing Windows

- Insert the Windows Installation DVD/Flash Drive
- Restart your Computer
- Wait for the First startup screen
- Press or hold Del or F2 to enter the BIOS screen
- Locate the Boot order/ Boot sequence
- Select Boot order/ Boot sequence as per your installation source

  USB Flash/USB Hard Disk

  USB CD/DVD ROM

  Internal CD/DVD ROM
- Select any option:

  Upgrade

  Customize Installation (Advance)
- Select any drive for installing your operating system Follow the on screen instructions

Q10. Give steps To install MS- Office package

We need to take following steps.

- Run the MS- Office setup from USB, DVD or Hard Disk backup.
- Check the box marked 'I accept the terms of this agreement' and click on 'Continue'.
- Enter Product Key
- Click on Install Now or Customize procedure.

- Select the package which you want to install. Click on 'Install Now'. Then installation begins.
- MS Office installer will notify automatically after finishing the installation.

Choose the right answer

1. The software which performs all basic tasks is:

a) antivirus   b) start menu

c) operating system   d) office automation

2. A program that enables user to interact with computer is called:

a) my document   b) start menu

c) desktop   d) interface

3. The process of checking computer, starting operating system and making it ready to work is referred to as:

a) resource management   b) booting

c) error checking   d) file management

4. The number of user(s) that can access the resources simultaneously on a Multiuser OS is /are:

a) one   b) two

c) many   d) only administrators

5. Which management controls the dynamic allocation and de-allocation of processor, memory, etc?

a) Resource   b) File

c) I/O   d) User

6. In which operating system jobs are executed in groups?

a) Batch Processing   b) Time Sharing

c) Single User   d) Real Time

7. The system that guarantees that critical tasks should be completed without shortest delay is:

a) Batch Processing   b) Hard Real Time

c) Soft Real Time   d) Time Sharing

8. DOS is an example of:

a) Real Time Processing OS   b) Multi Processing OS

c) Single User OS   d) Multi User OS

9. The group of programs that helps office workers to do a number of routine tasks easily and efficiently is called:

a) operating system   b) e-mail

c) anti-virus   d) office automation

10. The operating system that allows frequent switching from one task to another is:

a) Batch Processing   b) Real Time Processing

c) Single User   d) Time Sharing