Words to Know

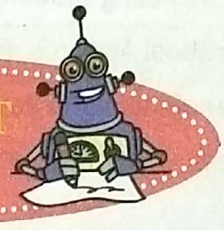
- **Application software:** A set of programs designed to help the user to perform specific tasks.
- **Assembler:** The software that converts a program written in assembly language into its equivalent machine language.
- **Binary number system:** A base-2 number system that use two digits—0 and 1.
- **Compiler:** The software that converts a program written in a high-level language into its equivalent machine language as a whole.
- **General purpose application software:** A type of application software developed keeping in mind the requirements of an organisation or an individual.
- **Interpreter:** The software that converts and executes the source code of a high-level language program line by line.

- **Language processor:** The software that translates or converts programs in assembly and high-level language into machine language.
- **Open-source Initiative (OSI):** An organisation dedicated to promote open-source software.
- **Open-source software:** The software that is distributed under a licensing arrangement. It allows the underlying code to be accessible to the users and organisations so that they may study it, make changes to it and build new versions of the software incorporating their changes.
- **Proprietary software:** The software for which there are restrictions on use, modification, copying or redistribution.
- **Specific purpose application software:** An application software developed keeping in mind the general needs and requirements of a large number of people.
- **System software:** The software used to control the operations of a computer system.
- **Utility software:** The software developed to perform maintenance work on a computer system to help in its smooth functioning.

RECAP ZONE

- Machine language is the language in which instructions are given in the form of strings of 0s and 1s and is directly understood by a computer.
- Assembly languages make use of abbreviated words called mnemonics to denote instructions.
- High-level language is the language in which programs are written using English like words and mathematical symbols.
- Operating system, Language processor and Utility Software are three types of System software.
- An operating system serves as an interface between the user and the hardware.
- The two categories of application software are—General Purpose Application Software and Specific Purpose Application Software.

ASSESSMENT ZONE



A. Choose the correct answer.

1. Which type of software converts and executes the source code of a high-level language program line by line?

   a) Compiler b) Interpreter c) Assembler d) Operating System

2. A type of software that allows the source code to be accessible to the users and organisations are called _____.

a) Proprietary software
b) Open-source software
c) Desktop Publishing software
d) Language Processors

3. A software program that let us store large amounts of data in an organised manner and provides tools for searching data and generating reports based on conditions is called _____.

a) Spreadsheet software
b) Desktop Publishing software
c) Graphics software
d) Database Management software

4. Which among the following is the largest unit of measurement of memory?

a) Petabyte
b) Gigabytes
c) Yottabyte
d) Terabyte

B. Fill in the blanks using the words given in the box.

petabyte	operating system	utility	Proprietary	zettabyte	Open-Source

1. The _____ is an interface between the user and the hardware.
2. _____ software is a computer software for which there are restrictions on use, modification, copying or redistribution.
3. One _____ is equal to 1024 Terabyte whereas one _____ is equal to 1024 Exabyte.
4. The _____ software performs maintenance work on a computer system to help in its smooth functioning.
5. Ubuntu, an Operating System, is an example of _____ software.

C. Choose the odd one out.

1. Complier, Assembler, Interpreter, Disk Cleanup
2. Linux, Windows, Android, Access
3. Billing System, iOS, Ticketing System, Inventory Control System
4. QuarkXpress, Photoshop, Antivirus, Excel
5. Mozilla Firefox, Openoffice.org Writer, Audacity, Adobe InDesign
6. Visual Foxpro, Access, Oracle, PowerPoint

D. State whether the following statements are True or False.

1. A computer can work without an operating system. _____
2. Application software is used to control the operations of a computer. _____
3. High-level language programs have to be converted to machine language using an interpreter or compiler. _____
4. An antivirus program is an example of utility software. _____

5. Payroll software is an example of general purpose application software. _____

E. Convert the following decimal numbers to their equivalent binary form.

1. 126 2. 76 3. 172 4. 512

F. Convert the following binary numbers to their equivalent decimal form.

1. 111110 2. 110001 3. 1010011 4. 11101011

G. Answer the following questions.

1. Differentiate between the following.
   a) High-level language and machine level language
   b) Compiler and Interpreter
   c) System software and application software
2. What are the two categories of application software? Name and define them by giving suitable examples of each.
3. Name any two functions performed by operating system.
4. What is the advantage of an open-source software? Give two examples of open-source software.

ACTIVITY ZONE

Make use of an Antivirus software to scan the computer system for viruses.

HOTS

Complete the following table.

Category of software	Description	Example
	This type of software is used for designing books, journals, brochures, newspapers.	
		Windows
Utility Software		
		Compiler, Interpreter
	It is developed keeping in mind the requirements of an organisation or an individual.	
Open-Source Software		