

Computer Software

Very Short Answer Type Questions

Question 1.

What is a computer software?

Answer:

Computer software is a collection of programs, procedure and related data that provide the instructions for telling a computer what to do and how to do it.

Question 2.

What do you mean by system software?

Answer:

System software refers to the programs that controls internal computer operations and makes best use of the hardware devices.

Question 3.

What do you mean by an operating system?

Answer:

Operating system is a program that acts as an interface between the user and the hardware.

Question 4.

In order to use the printer, an operating system will need a special type of software. This software is known as what?

Answer:

In order to use the printer, an operating system will need a device driver software.

Question 5.

Which language processor converts an HLL program into machine language at once?

Answer:

Compiler is a language processor which converts whole HLL program into machine language at once which can be understood by the processor.

Question 6.

Define a utility software.

Answer:

A utility software is a system software designed to help in the management and tuning of operating systems, computer hardwares and different application softwares.

Question 7.

Mention some examples of utility software.

Answer:

Data compression utilities, virus protection utilities and disk defragmentation utilities.

Question 8. Which software do you use to keep your system intact from computer viruses?

Answer:

Antivirus software is used to keep your system intact from computer viruses.

Question 9.

Why we cannot use a text editor as a picture editing tool?

Answer:

Text editor is a editing program which does not support the editing of graphical images because it works only on text.

Question 10.

Describe an application software.

Answer:

An application software is designed to help the user to perform specific functions.

Question 11.

Why do we use spreadsheets?

Answer:

A spreadsheet is specially used to organise data in tables and to analyse the tabulated data in desired manner. It allows you to do a lot of calculations.

Question 12.

Name the software used to control redundancy from a collection of large amount of data.

Answer:

A database is a collection of integrated data stored together with controlled redundancy to serve one or more applications in an optimal fashion.

Question 13.

Name the latest attendance recording devices used in an attendance system.

Answer:

Biometrics and Access cards.

Question 14.

What do you mean by machine language?

Answer:

Machine language is the only language that is understood by the computers. It is a collection of binary digits (0 or 1) or bits that the computer reads and interprets.

Short Answer Type Questions

Question 1.

Name the types of software with examples for each.

Answer:

There are two types of software, i.e. system software and application software. Language processors (interpreters, compilers and assemblers), operating systems etc., are the examples of system software. Whereas, payroll system, accounting software etc., are the examples of an application software.

Question 2.

Write a short note on BIOS.

Answer:

The Basic Input/output System (BIOS) is commonly known as ; system BIOS. It is a boot firmware or a small program that controls various electronic devices attached to the main computer system. The initial function of the BIOS is to initialise system devices such as RAM, hard disk, CD/DVD drive, video display card and other hardware. It sets the machine hardware into a known state that helps the operating system to configure the hardware components. This process is known as Booting Up the computer.

Question 3.

Which is more beneficial a compiler or an interpreter and why?

Answer:

Compiler is more beneficial than an interpreter for translating a high level, language program into machine language program because compilation process of a compiler is nearly 5 to 25 times faster than interpreter.

Question 4.

What are the functions of an interpreter?

Answer:

Interpreter is very useful for debugging and suitable for novice programmer. This is a slow process and consumes less memory space.

Some basic functions of an interpreter are as follows:

- Translates one instruction at a time.
- It checks the execution of the instructions line-by-line.

Question 5.

Distinguish between compiler and interpreters.

Answer:

Compiler	Interpreter
Compiler takes entire program as input.	Interpreter takes single instruction as input.
Intermediate object code is generated.	No intermediate object code is generated.
Conditional control statements execute faster.	Conditional control statements execute slower.
Memory requirement is more (since, object code is generated).	Memory requirement is less.
Errors are displayed after entire program is checked.	Errors are displayed for every instruction interpreted.
E.g. Compiler in C language.	E.g. Interpreter in Basic language.

Question 6.

Explain any one utility software.

Answer:

It is a system software designed to help in management and tuning of operating systems, computer hardwares and different application softwares.

A single piece of utility software is usually called a utility or a tool. Utilities are those application programs that assist the computer by performing house-keeping functions like backing up disk or scanning/cleaning viruses.

A utility program carries out some of the common tasks, while using a computer system. Utility software is also known as service program, service tool or utility routine. It differs

from applications mostly in terms of size, complexity and function. Utility programs are bundled with operating systems. However, these programs are also available in a separate package and that's why they are sometimes considered separate from system software.

Utilities include Disk Compression, Backup, Virus Protection Utilities (Antivirus), Disk Defragmentation Utilities etc.

Question 7.

Explain the main role of data backup software.

Answer:

Backup software is used to make a copy of all the information stored on a disk and restore it when needed.

An ideal data backup software provides functionalities beyond simple copying of data files. This software often supports user needs to specifying what is to be backed up and when.

Question 8.

What is the use of disk defragmenter?

Answer:

It can detect computer files, whose contents are broken across several locations on the hard disk and move these fragments in a particular location to increase storage efficiency. You can use disk defragmenter to rearrange files and unused space of your hard disk, so that programs run fast, e.g. My Defrag, Perfect Disk, Diskeeper, Defragged etc.

You can start Disk Defragmentation process as follows:

Click **Start** —> **All Programs** —> **Accessories** —> **System Tools** —> **Disk Defragmenter**.

Question 9.

What do you mean by debugging?

Answer:

The process of searching and correcting bugs (errors) in a program is called debugging and debugger is a program that is used as an aid to remove bugs from program. Bug in a small computer program causing a problem to crash the system or produce an invalid output.

Question 10.

What are the four steps in debugging?

Answer:

The four steps in debugging are as follows:

1. Discovering of the bug
2. Isolation of the bug
3. Finding the bug
4. Fixing the bug

Question 11.

What do you understand by network utilities? Write some commands to start a network utility?

Answer:

Network utilities provide a way to check the connectivity of a network and log events while using the Internet, ipconfig, ping, spray etc., are some commands to start a network utility.

Question 12.

What is the use of network utility?

Answer:

Machine Language	Assembly Language
Machine language uses binary digits (0s and 1s) to write a program.	Assembly language used mnemonic codes to write a program in place of binary digits.
It is not human readable language.	It is a more human readable language.
It is directly understood by the computer.	It is not directly understood by the computer.
There is no need of any type of language processor.	Assembler is used to translate assembly language into computer understandable language.

Network utility analyses the computer's network connectivity, configure network settings, check the data transfer or log events. It works for the router to check whether the network is connected or not and other technical issues.

Question 13.

Explain file manager.

Answer:

It is a software program that provides a user interface to work with file system. It helps a user to manage all the files on its computer system. All file managers allow the user to

view, edit, copy and delete the files on its computer system, e.g. Nomad.net, Master Commander, Unreal Commander etc.

Question 14.

What is the difference between machine language and assembly language?

Answer:

Difference between machine language and assembly language are as follows:

Question 15.

Explain encryption and decryption.

Answer:

A process to convert a plain text into cipher text is called encryption. Whereas, a process to convert a cipher text into plain text is called decryption.

Question 16.

What is general purpose application software? Give some examples of general purpose application.

Answer:

General purpose application softwares are those softwares, which are used for any general function. They allow people to do simple computer tasks. It is sometimes referred to as GPS. e.g. graphics, multimedia, presentation software, desktop publishing software etc.

Question 17.

Why do we use reservation system?

Answer:

It is a computerised system used to store and retrieve information and conduct transactions related to air travel, hotels, car rental or other activities.

It is an application software which is commonly seen at railway reservation offices, this software helps the concerned department to automatically check the availability of the seats or berths of any train and on any particular date with an incomparable speed.

Question 18.

What are HLLs? Give example of some HLLs.

Answer:

It is an advanced computer programming language that is not limited to one computer, designed for a specific job and is easier to understand. The main advantage of high level languages over low level languages is that they are easier to read, write and understand, e.g. BASIC, C, FORTRAN, Java and Pascal.

Long Answer Type Questions

Question 1.

What is an operating system? Explain its functions with an examples.

Answer:

It is a program that acts as an interface between the user and the hardware (i.e. for all computer resources). An operating system is an important component of a computer system, which controls and co-ordinates all other components of it. It activates all devices that makes them ready for work. It also performs all internal management functions and ensures systematic functioning of a computer system.

The operating system performs the following functions:

- It recognises input from keyboard and sends output to the display screen.
- It makes sure that the programs running simultaneously do not interfere with each other.
- It is also responsible for security, ensuring that unauthorised users cannot access the system e.g. MS-DOS, Windows 95, Windows XP, Windows Vista etc.

Question 2.

Describe utility software and also define its types.

Answer:

It is a system software designed to help in management and tuning of operating systems, computer hardwares and different application softwares.

A single piece of utility software is usually called a utility or a tool. Utilities are those application programs that assist the computer by performing house-keeping functions like backing up disk or scanning/cleaning viruses.

A utility program carries out some of the common tasks, while using a computer system. Utility software is also known as service program, service tool or utility routine. It differs from applications mostly in terms of size, complexity and function. Utility programs are bundled with operating systems. However, these programs are also available in a separate package and that's why they are sometimes considered separate from system software.

Utilities include Disk Compression, Backup, Virus Protection Utilities (Antivirus), Disk Defragmentation Utilities etc.

- **Disk Compression**

It is a utility software which perform the task of emphasis on the drive, so that more space is available for additional data to be stored.

- **Backup**

It can make copy of all information stored on a disk and restore either the entire

disk files (e.g. an event of disk failure) or selected files (e.g. an event of accidental deletion) on the user defined storage.

- **Disk Defragmenter**

It can detect computer files, whose contents are broken across several locations on the hard disk and move these fragments in a particular location to increase storage efficiency.

- **Disk Checker and Disk Cleaner**

Disk Checker is a fully-featured disk diagnostics and repairing tool with backup ability.

- **Disk Partition Tool**

It is an utility tool which can divide an individual drive into multiple logical drives, each with its own file system which can be mounted by the operating system and treated as an individual drive.

Question 3.

Name at least two softwares that could be used to produce a publication such as brochure or newsletter. Explain each.

Answer:

A brochure or newsletter can be produced using

- Word processor
- DTP software

A Word processor is a general software, which is used for the processing of textual matter and creation of organised and error less documents.

However, there are several Word processors, which offer features and utilities similar to DTP software. So, even they can be used for creating professional publications.

A DTP software is meant for creating professional publications. It combines the functions of traditional typesetter and a layout artist to produce documents such as newsletters, brochures, leaflets, magazines etc.

Question 4.

Explain Database Management. What are the features of DBMS?

Answer:

It refers to the software that is responsible for storing, maintaining and utilising a database. It enables a user to define, create and maintain the database and provide controlled access on it. A database is a collection of integrated data stored together to serve multiple applications.

Data Base Managements System provides several additional features which are as follows:

- Removes data redundancy
- Elimination of data inconsistency
- Data integration
- Data sharing
- Data security
e.g. MS-Access, Corel Paradox, Lotus Approach, MySQL, OpenOffice.org Base etc.

Question 5.

Explain any five specific purpose application softwares.

Answer:

1. Hotel Management System

It refers to the management techniques used in the hotel sector. It includes hotel administration, accounts, billing marketing, housekeeping, front office or front desk, e.g. Hotelogix PMS, Djubo, True Hotel Management, Aatithya HMS etc.

2. Payroll Management System

It is used by all modern organisations to encompass every employee of the organisation, who receives regular wages or other compensation. All different payment methods are calculated by the payroll software and the appropriate paychecks are issued. This software can also be used for printing or E-mailing the salary slip of employees, e.g. Namely, UltiPro etc.

3. HR Management System

It refers to the systems and processes at the intersection between Human Resource Management (HRM) and Information Technology (IT). The function of HR department is generally administrative and common in all organisations. e.g. Effective Staff, Cezanne HR etc.

4. Attendance System

It is an application software designed to track and optimise the presence of a person/student in an organisation/school. Now-a-days, attendance system can be integrated with customer's existing time/ attendance recording devices like Biometrics/Access cards. Attendance management can be done in two ways as follows:

- Biometric integration
- Manual attendance integration
e.g. eTime TrackLite, Pyramid PTR 4000 etc.

5. **Billing System**

It refers to the software that is used to perform the billing process. It handles the tracking of labelled products and services delivered to a customer or set of customers.

e.g. Billing Manager, Billing Tracker, k Billing etc.

Question 6.

What is an accounting software and HR management system. Also, name the types of accounting software?

Answer:

Accounting Software

This system records and processes accounting transactions within functional modules such as accounts payable, accounts receivable, payroll and trial balance. It works as an accounting information system.

There are several types of accounting software as follows:

- Accounts payable software
- Bank reconciliation software
- Budget management software etc.
e.g. Tally ERP9, HDPOS, MARG, Profit Books etc.

HR Management System

It refers to the systems and processes at the intersection between Human Resource Management (HRM) and Information Technology (IT). The function of HR department is generally administrative and common in all organisations.

e.g. Effective Staff, Cezanne HR etc.

Question 7.

What are the generations of languages. Explain them.

Answer:

- **The first generation languages or 1GLs** are low level languages like machine language.

It is the only language understood by the computers. Sometimes, it is referred to as machine code or object code or binary language. It is a collection of binary digits (0 or 1) or bits that the computer reads and interprets.

- **The second generation languages or 2GLs** are also low level languages that generally consist of assembly language.

It is a low level programming language, which is used as an interface with computer hardwares. It uses structured commands as substitutions for numbers, allowing humans to read the code easier than looking at binary codes.

- **The third generation languages or 3GLs** are high level languages such as C. It is an advanced computer programming language that is not limited to one computer, designed for a specific job and is easier to understand. The main advantage of high level languages over low level languages is that they are easier to read, write and understand, e.g. BASIC, C, FORTRAN, Java and Pascal.
- **The fourth generation languages or 4GLs** are the languages that consists of statements similar to the statements of human language. 4GLs are commonly used in database programming and scripting programming.
- **The fifth generation languages or 5GLs** are programming languages that contains visual tools, which helps to develop a program. A good example of 5GLS is Visual Basic.

Application Oriented Questions

Question 1.

The following paragraph describes the term software. Software is a collection of computer (i) and related data that provide the (ii) for telling a computer what to do and how to-do. Software is a conceptual (iii) Which is a set of (iv) programs,(v) and associated (vi) concerned with the operation of a data (vii) system.

Fill in the blanks with words from the list below:

instructions, basic, programs, processing, entity, computer, useful, procedures, documentation, hardware

Answer:

- (i) programs
- (ii) instructions
- (iii) entity
- (iv) computer
- (v) procedures
- (vi) documentation
- (vii) processing

Question 2.

Software is not only the basic requirement of a computer system, it makes a computer more powerful and useful.

Computer systems divide software into two major classes.

1. What is the meaning of the term software?

2. (ii) Name the two major classes of software.

Answer:

1. Software is a set of programs that tells the computer to perform a task.
2. Computer system divides software into two major categories:
 - System software
 - Application software

Question 3.

Operating system is an important component of a computer system. Various types of operating systems are available.

1. Operating system belongs to which class of software?
2. (ii) What is the need of an operating system?
3. (iii) Why an operating system is important?

Answer:

1. System software.
2. Operating system provides a software platform on which other programs, called application programs are run.
3. It acts as an interface between the user and the hardware.

Question 4.

Reena got an assignment on the topic Word processing software. Help her to solve the assignment.

1. What is Word processing software?
2. Which type of software is Word processor?
3. Give some examples equivalent to type of Word processing software.
4. Give some examples of Word processing program.

Answer:

1. Word processing software is an application software that helps to create text based documents. It also processes paragraphs, pages and entire papers.
2. General purpose application software.
3. Electronic spreadsheets, database management systems, desktop publishing software, graphics, multimedia and presentation applications.
4. Microsoft Word, WordPerfect (Windows only), AppleWorks (Mac only) and OpenOffice.org Writer.

Question 5.

Mr. X has recently installed a new operating system on his computer

- Describe the main functions of an operating system.
- Name any two utility programs used by an operating system.

Answer:

- Monitors the performance of the system, enables software to communicate with hardware and application softwares to be loaded; gives prompts and error reports to the users.
- Antivirus and compression tool.

Question 6.

Below is the list of various types of application softwares:

- A. Database
- B. Desktop publishing
- C. Drawing
- D. Word processing
- E. Spreadsheet

Which one would be the most suitable to use for each of the following tasks?

- Rotation of shapes
- Typing in text for a novel
- Using frames to position text and graphics on a page
- Replication of cells
- Carrying out a complex search on two or more criteria

Answer:

- Drawing
- Word processing
- Desktop publishing
- Spreadsheet
- Database

Multiple Choice Questions

Question 1.

Which one of the following is a set of instructions that tells the hardware how to perform the tasks?

- (a) Compiler
- (b) Software
- (c) Hardware
- (d) CPU

Answer:

(b) Software is a set of instructions that tells the hardware how to perform the tasks.

Question 2.

Operating system is a
(a) application software
(b) system software
(c) hardware
(d) language

Answer:

(b) Operating system is a system software that acts as an interface between the user and the hardware.

Question 3.

Which software takes control of computer system on startup?
(a) Compiler
(b) Operating system
(c) Application software
(d) All of these

Answer:

(b) Operating system takes control of computer system on startup.

Question 4.

Which device is used to convert the program written in assembly language into machine language?
(a) Interpreter
(b) Compiler
(c) Assembler
(d) None of these

Answer:

(c) Assembler is used to convert the program written in assembly language into machine language because it is a language processor that converts the user defined language into a form which can be easily understood by the computer.

Question 5.

Interpreter converts a high level language program into a machine language by
(a) one go mechanism
(b) line-by-line mechanism
(c) group of five lines mechanism
(d) None of the above

Answer:

(b) Interpreter is a language processor, which converts the high level language program into machine language by using line-by-line mechanism.

Question 6.

The language processor which converts high level language into machine language is

- (a) assembler
- (b) compiler
- (c) interpreter
- (d) Both (b) and (c)

Answer:

(d) Both compiler and interpreter are language processors that convert high level language into machine language.

Question 7.

Utility programs include

- (a) Virus scanning software
- (b) Backup software
- (c) Disk defragmenter
- (d) All of the above

Answer:

(d) Utility programs include virus scanning, backup, disk defragmenter software.

Question 8.

Disk Cleaner helps to free

- (a) data
- (b) recycle bin
- (c) spaces
- (d) None of these

Answer:

(c) Disk Cleaner helps to free spaces. So that, the free spaces can be utilised to store another file or folder.

Question 9.

This part of utility software is used to prevent phosphor burning on computer monitors by blanking the screen with moving images.

- (a) File Managers
- (b) Debugging Tool
- (c) Disk Cleaners
- (d) Screensavers

Answer:

(d) Screensavers fill the computer screen with moving images or patterns, when the computer is not in use.

Question 10.

Which of the following is not related to a utility software?

- (a) Text editor
- (b) Antivirus program
- (c) Disk compression software
- (d) Railway reservation system

Answer:

(d) Railway reservation system is an example of application software whereas, rest all are software utilities.

Question 11.

Which type of software is designed to perform specific, personal, business or scientific processing tasks?

- (a) System
- (b) Application
- (c) GUI
- (d) Compiler

Answer:

(b) Application software is a computer software which is designed to help the user to perform some specific or personal tasks.

Question 12.

Which of the following is not related to an application software?

- (a) Word processor
- (b) DBMS
- (c) Operating system
- (d) Railway reservation system

Answer:

(c) Application software is a software which carries out a specific task like Word processor, spreadsheet, DBMS etc. Among the given options, operating system is related to system software.

Question 13.

DTP is a tool for graphic designers and non-designers to create visual communications for professional. DTP stands for

- (a) Device Transfer Protocol
- (b) Desktop Publishing
- (c) Device Transfer Programs
- (d) All of the above

Answer:

(b) DTP stands for Desktop Publishing.

Question 14.

Assembly language is a low level programming language

- (a) makes use of mnemonics to interact with computer system
- (b) sometimes referred to as machine code or object code
- (c) that is not limited by the computer or for one specific job
- (d) used to interact with computer software

Answer:

(a) Assembly language is a low level programming language that use mnemonics to interact with computer system.

Question 15.

Machine language sometimes referred to as

- (a) programming language that is used widely by the programmer.
- (b) machine code or object code
- (c) programming language that is more easily understood
- (d) language that is not limited by the computer

Answer:

(b) Machine language sometimes referred to as machine code or object code because it is the language which is only understood by the computer as a computer itself is just a machine or an electronic device.

Fill in the Blanks

Question 1.

Program is a set of

Answer:

instructions

Question 2.

The software is categorised as and software.

Answer:

system, application

Question 3.

..... and are system softwares.

Answer:

Operating system, language processors

Question 4

..... is a software that controls and manages the hardware.

Answer:

Operating System

Question 5.

The software that helps the computer in maintaining its performance is called

Answer:

Utility software

Question 6.

A safe way to remove viruses is to run an

Answer:

antivirus software

Question 7.

..... is a software program that provides a user interface to work with the file system.

Answer:

File manager

Question 8.

Encryption is the process of transforming

Answer:

plain text into cipher text

Question 9.

A is a group of related fields.

Answer:

database

Question 10.

Payroll system and accounting system are the softwares.

Answer:

application

Question 11.

Programmers use a variety of to communicate instructions to the computer.

Answer:

programming languages

True or False

Question 1.

We cannot work on computer without software.

Answer:

True

Software is a set of programs, which instructs the computer to do a task. We always need a software to work on the computer system.

Question 2.

Hardware is operated by system softwares.

Answer:

True

System softwares tell hardwares how to perform a task.

Question 3.

Operating system is an application software.

Answer:

False

It is a system software which acts as an interface between the user and the hardware.

Question 4

Device drivers are the part of application software.

Answer:

False

Device drivers are the part of system software, which is used to make interface between the device and the user or the operating system.

Question 5.

Interpreter translates whole program at a time.

Answer:

False

Interpreter is a language processor which translates the whole program line-by-line.

Question 6.

A text editor is used to facilitate the creation and correction of text.

Answer:

True

A text editor is used to create and edit the text. Text editor is a part of utility.

Question 7.

Encrypted data is referred as cipher text.

Answer:

True

Encrypted data is presented in coded form. So, it is known as cipher text.

Question 8.

The set of programs designed to perform user specific tasks is called application software.

Answer:

True

Application software refers to the programs that perform operations for a specified task of a user.

Question 9.

MS-Word and MS-Excel are two application softwares.

Answer:

True

MS-Word and MS-Excel are two application softwares because such type of softwares pertains to specific applications and specific task.

Question 10.

Assembly language uses mnemonic codes.

Answer:

True

Assembly language uses mnemonic codes to represent each low level machine operation or code.

Question 11.

The third generation of languages are low level languages.

Answer: False

They are high level languages such as C.