Q No. 1: What is the difference between a desktop computer and a laptop computer?

Answer: A desktop computer is a personal computer that is stationed at a fixed location. On the other hand, a laptop is a compact version of a desktop computer. Generally, a desktop is bulkier than laptop. Laptops are preferred for their portability, whereas desktops are preferred for more nifty parts and features.

Q No. 2: Describe a game console. Give examples of common game computer?

Answer: Game console is an interactive computer used for entertainment. It displays video games when connected to a television or a computer monitor. A typical game console consists of a handheld controller or a remote controller that controls the characters in a game. Some examples of game console are Nintendo DS Lite, Microsoft's Xbox 360 etc.

Q No. 3: What are nonimpact printers? Name main types of nonimpact printers.

Answer: Non-impact printers are the printers that print without banging a ribbon onto paper. Laser, LED, inkjet, solid ink, thermal wax transfer and dye sublimation printers are examples of non-impact printers.

Q No. 4: What is ALU?

Answer: An arithmetic logic unit (ALU) is a digital circuit used to perform arithmetic and logic operations. It represents the fundamental building block of the central processing unit (CPU) of a computer. Modern CPUs contain very powerful and complex ALUs. In addition to ALUs, modern CPUs contain a control unit (CU).

Q No. 5: Describe units of memory. How many KBs are there in 1TB?

Answer: A bit (0 or 1) is a binary digit, the smallest unit of the computer memory. A byte is a sequence of 8 bits. Since most files contain thousands of bytes, file sizes are often measured in kilobytes. Larger files, such as images, videos, and audio files, contain
millions of bytes and therefore are measured in megabytes. Modern storage devices can store thousands of these files, which is why storage capacity is typically measured in gigabytes or even terabytes. Larger units of measurement are usually reserved for
measuring the sum of multiple storage devices or the capacity of large data storage networks. There are 1073741824 KBs in 1TB.

Q No. 6: Describe various input devices used in computer?

Answer: In computing, an input device is a piece of computer hardware equipment used to provide data and control signals to an information processing system such as a computer or information appliance. Examples of input devices include keyboards, mouse, scanners Light Pen and Joysticks.

Keyboard: Most common and very popular input device is keyboard. The keyboard helps to input the data to the computer. The layout of the keyboard is like that of traditional typewriter, although there are some additional keys provided for performing some additional functions.
Keyboards are of two sizes 84 keys or 101/102 keys, but now 104 keys or 108 keys keyboard is also available for Windows and Internet.

Mouse: Mouse is most popular Pointing device. It is a very famous cursor-control device. It is a small palm size box with a round ball at its base which senses the movement of mouse and sends corresponding signals to CPU on pressing the buttons.

Scanner: Scanner is an input device which works more like a photocopy machine. It is used when some information is available on a paper and it is to be transferred to the hard disc of the computer for further manipulation.

Light Pen: Light pen is a pointing device which is similar to a pen. It is used to select a displayed menu item or draw pictures on the monitor screen. It consists of a photocell and an optical system placed in a small tube.

Microphone: Microphone is an input device to input sound that is then stored in digital form. The microphone is used for various applications like adding sound to a multimedia presentation or for mixing music.

Joystick: Joystick is also a pointing device which is used to move cursor position on a monitor screen. It is a stick having a spherical ball at its both lower and upper ends. The lower spherical ball moves in a socket. The Joystick can be moved in all four directions.

Q No. 7: What type of keyboard is used in tabs?

Answer: Virtual keypad is used in tabs.

Q No. 8: What type of computers is used in banking and finance?

Answer: Mainframe computers are used in banking and finance institutions to store data pertaining to client records, domestic operations and other vital processing information. A large bank with numerous branches may have a mainframe computer in its central headquarters and linking terminals located in each of its branches.

Q No. 9: List some disadvantages of computer.

Answer: Some disadvantages of computer are:

1. Lack of Physical Activity.
2. Causes poor blood circulation.
3. Creates tendency to skip meals.
4. Can result in overeating and obesity.
5. Causes headache.
6. Strains the eyes and causes poor eye sight

Q No. 10: Discuss the factors that can affect the speed of a computer?

Answer: There are many factors which affect how fast your computer can process data and instructions:

o **The amount of RAM memory:** The amount of RAM in a computer can have a profound effect on the computer's power. More RAM means the computer can use bigger, more powerful programs, and those programs can access bigger data files.

o **The speed and generation of your CPU (the system clock):** The computer's operating speed is tied to the speed of the system clock. For example, if a computer's clock speed is 300 MHz, it "ticks" 300 million times per second. A clock cycle is a single tick, or the time it takes to turn a transistor off and back on again.

o **The amount of Cache memory.** Cache (pronounced cash) memory is extremely fast memory, which hold the most recently used data and instructions.

Class 9th	*Unit II*
Chapter NO.: 02	*Chapter: Computer Software*

Q No. 1: What is software? Define the two main types of software?

Answer: The term 'software' refers to the set of electronic program instructions or data a computer processor reads in order to perform a task or operation. ... There are two main types of software: system software and application software.

System Software: Systems software includes the programs that are dedicated to managing the computer itself, such as the operating system, file management utilities, and disk operating system (or DOS).

Application Software: An application program is a computer program designed to perform a group of coordinated functions, tasks, or activities for the benefit of the user. Examples of an application include a word processor, a spreadsheet, an accounting application, a web browser, a media player, an aeronautical flight simulator, a console game or a photo editor.

Q No. 2: Define a device driver.

Answer: A program that controls a device. Every device, whether it be a printer, disk drive, or keyboard, must have a driver program. Many drivers, such as the keyboard driver, come with the operating system. For other devices, you may need to load a new driver when you connect the device to your computer.

Q No. 3: Define utility software and list the various types of utility software.

Answer: Utility software is system software designed to help analyze, configure, optimize or maintain a computer. It is used to support the computer infrastructure in contrast to application software, which is aimed at directly performing tasks that benefit ordinary users.

- **Anti-virus** utilities scan for computer viruses and remove them.
- **Archives** output a stream or a single file when provided with a directory or a set of files. Archive *suites* may include compression and encryption capabilities. Some archive utilities have a separate un-archive utility for the reverse operation.
- **Backup software** makes copies of all information stored on a disk and restore either the entire disk (e.g. in an event of disk failure) or selected files (e.g. in an event of accidental deletion).
- **Clipboard managers** expand the clipboard functionality of an operating system.
- **Cryptographic** utilities encrypt and decrypt streams and files.
- **Data compression** utilities output a shorter stream or a smaller file when provided with a stream or file.

Q No. 4: What do you understand by customized software?

Answer: Custom software (also known as bespoke software or tailor-made software) is software that is designed for a specific user or group of users within an organization. Such software is designed to address their needs precisely as opposed to the more traditional and widespread off-the-shelf software.

Q No. 5: Explain any two tailor-made software.

Answer: Two tailor-made software are discussed below:

A payroll system is software designed to organize all the tasks of employee payment and the filing of employee taxes. These tasks can include keeping track of hours, calculating wages, withholding taxes and deductions, printing and delivering checks and paying employment taxes to the government.

A billing system is a combination of software and hardware that receives call detail and service usage information, groups this information for specific accounts or customers, produces invoices, creates reports for management, and records (posts) payments made to customer accounts.

Q No. 6: What are the two types of application software? Define them.

Answer: Two types of application software are:

- Spreadsheet: Spreadsheet is an interactive computer application for organization, analysis and storage of data in tabular form. Spreadsheets are developed as computerized simulations of paper accounting worksheets.
- Database Management System: A database is an organized collection of data. A relational database, more restrictively, is a collection of schemas, tables, queries, reports, views, and other elements.

Q No. 7: Explain the following:

Answer: Word processor: A word processor is an electronic device or computer software application that performs the task of composing, editing, formatting, and printing of documents.

Spreadsheet: Spreadsheet is an interactive computer application for organization, analysis and storage of data in tabular form. Spreadsheets are developed as computerized simulations of paper accounting worksheets.

Database Management System: Database Management System: A database is an organized collection of data. A relational database, more restrictively, is a collection of schemas, tables, queries, reports, views, and other elements.

Q No. 8: What are programming languages?

Answer: A programming language is a formal language that specifies a set of instructions that can be used to produce various kinds of output. Programming languages generally consist of instructions for a computer.
Example: SQL, Java, JavaScript, C# , C++ , Python, PHP.

Q No. 9: Why are language processors needed?

Answer: A language processor is a software program designed or used to perform tasks, such as processing program code to machine code. Language processors are found in languages such as Fortran and COBOL.
Main types of language processors are.
- Interpreter - allows a computer to interpret, or understand, what a software program needs the computer to do, what tasks to perform.
- Translator - takes a program's code and translates it into machine code, allowing the computer to read and understand what tasks the program needs to be done, in its own native code. An Assembler and a Compiler are examples of a translator.

Q No. 10: What is the difference between a compiler and an interpreter?

Answer: The difference between an interpreter and a translator is that an interpreter tells the computer what to do by interpreting the program's code for the computer. A translator takes the program's code and converts it to machine code, allowing the computer to read that machine code itself. The interpreter tells the computer what to do and the translator lets the computer figure out what to do by itself.

Class 9th	Unit II
Chapter NO.: 03	Chapter: Operating System

Q No. 1: What is meant by term processor management?

Answer: Process management is an integral part of any modern-day operating system (OS). The OS must allocate resources to processes, enable processes to share and exchange information, protect the resources of each process from other processes and enable synchronization among processes. To meet these requirements, the OS must maintain a data structure for each process, which describes the state and resource ownership of that process , and which enables the OS to exert control over each process.

Q No. 2: What role does Notification area play?

Answer: In computing, a notification area (also system tray or status area) is the portion of the user interface that displays icons for system and program features that have no presence on the desktop as well as the time and the volume icon. It contains mainly icons that show status information, though some programs, such as Winamp, use it for minimized windows. By default, this is located in the bottom-right of the primary monitor (or bottom-left on languages of Windows that use right-to-left reading order), or at the bottom of the taskbar if docked vertically.

Q No. 3: How do hibernate and shutdown options differ from each other?

Answer: Hibernate mode is almost the same thing as fully shutting down your PC, except it saves your place in Windows to resume the next time you turn it on. Power usage is nil when your PC is in hibernate mode, but you will experience startup times a bit longer than when coming from sleep mode. While shut down or power off a computer is to remove power from a computer's main components in a controlled way. After a computer is shut down, main components such as CPUs, RAM modules and hard disk drives are powered down, although some internal components, such as an internal clock, may retain power.

Q No. 4: How does an OS manage the memory on a computer?

Answer: Memory management is the functionality of an operating system which handles or manages primary memory and moves processes back and forth between main memory and disk during execution. Memory management keeps track of each and every memory location, regardless of either it is allocated to some process or it is free.

Q No. 5: How does an OS manage a new device connected to a computer?

Answer: Device management controls peripheral devices by sending commands in their proprietary command language. The software routine that deals with each device is called a "driver," and the OS requires drivers for each of the peripherals attached to the computer.

Q No. 6: Describe some commonly used operating system.

Answer: The three most common operating systems for personal computers are Microsoft Windows, Mac OS X, and Linux. Modern operating systems use a graphical user interface, or GUI.

Q No. 7: How can you identify the OS on your computer?

Answer: Check for operating system information in Windows 7

1. Click the Start button, enter Computer in the search box, right-click Computer, and then click Properties.
2. Look under Windows edition for the version and edition of Windows that your PC is running.

Q No. 8: list the steps you would perform to open the Notepad application.

Answer: To find Notepad on Windows:

- Click on Start or the Windows orb logo on the taskbar at the bottom of the desktop to show the Start menu.
- Click on Programs or All Programs to show a menu of installed programs in Windows.
- Click on the Accessories folder to expand it.

- Click on the Notepad icon to open the program.

Q No. 9: Which are the two primary icons present on a desktop? What are the roles of these two icons?

Answer: The two primary icons present on desktop are recycle bin and my computer.
The trash is temporary storage for files that have been deleted in a file
manager by the user, but not yet permanently erased from the file system .
My computer icon allows the user to access the local drives.

Q No. 10: What are the two alternate ways to access Control Panel?

Answer: Press Windows + R to open the Run dialog, enter control panel in the empty box and click OKorOpen the app by Command Prompt.
Step 1: Tap the Start button to open the Start Menu, input cmd in the search box and click Command Prompt to open it.
Step 2: Type control panel in the Command Prompt window and press Enter.

Q No. 1: What is the difference between broadband and wi-fi?

Answer: Broadband internet is typically anything faster than dial-up (cable, DSL, etc.) and in other words it provides high speed internet. Wi-Fi is a technology that uses radio waves to provide network connectivity.

Q No. 2: what do you understand by the term videoconferencing?

Answer: Videoconferencing (or video conference) means to conduct a conference between two or more participants at different sites by using computer networks to transmit audio and video data. For example, a point-to-point (two-person) video conferencing system works much like a video telephone.

Q No. 3: What is the difference between email and chat?

Answer: Chat and Email are two new communication media that was created along with the internet. Chat refers to any type of online communication that offers a real-time transmission of text messages from sender to receiver. E-mail, short for electronic mail is a method of exchanging digital messages from one person to another.

Q No. 4: Explain WWW.

Answer: The World Wide Web (abbreviated WWW or the Web) is an information space where documents and other web resources are identified by Uniform Resource Locators (URLs), interlinked by hypertext links, and can be accessed via the Internet English scientist Tim Berners-Lee invented the World Wide Web in 1989. He wrote the first web browser computer program in 1990 while employed at CERN(The European Organization for Nuclear Research) in Switzerland. The Web browser was released outside CERN in 1991, first to other research institutions starting in January 1991 and to the general public on the Internet in August 1991.

Q No. 5: Define ISP.

Answer: An Internet service provider (ISP) is an organization that provides services accessing and using the Internet. Internet service providers may be organized in various forms, such as commercial, community-owned, non-profit, or otherwise privately owned.

Chapter No.: 02	Chapter: storing information effectively

Q No. 1: Explain DBMS.

Answer: A database-management system (DBMS) is a computer-software application that interacts with end-users, other applications, and the database itself to capture and analyze data. A general-purpose DBMS allows the definition, creation, querying, update, and administration of databases.

Q No. 2: What do you mean by term, field, in a table?

Answer: In computer science, data that has several parts, known as a record, can be divided into fields. Relational databases arrange data as sets of database records, also called rows. Each record consists of several fields; the fields of all records form the columns.
 Examples of fields: name, gender, address.

Q No. 3: What do you mean by a data type? Explain any three.

Answer: Data type specifies the type of values that can be stored in a column of a table.
A collection of data types

Data type	For
Text	Text or combinations of text and numbers, such as addresses. Also numbers that do not require calculations.
Memo	Long text, such as notes.
Number	Numeric data to be used for mathematical calculations.
Date/Time	Date and time
Yes/No	Fields that will contain only one of two values, such as Yes/No, True/False,

	On/Off.
OLE object	Objects created in other programs using the OLE protocol.
Hyperlink	Fields that will store hyperlinks.

Q No. 4: What is primary key?

Answer: A primary key, also called a primary keyword, is a key in a relational database that is unique for each record. It is a unique identifier, such as a driver license number, telephone number (including area code), or vehicle identification number (VIN). A relational database must always have one and only one primary key.

Q No. 5: What is datasheet view?

Answer: A view that displays data from a table, form, query, view, or stored procedure in a row-and-column format. In Datasheet view, you can edit fields, add and delete data, and search for data.

Chapter No.: 11   **Chapter: Information Security**

Q No. 1: list any three types of security threats?

Answer: The types of computer security threats are:

✓ Trojan. A Trojan horse, or Trojan, is any malicious computer program which misleads users of its true intent. Unlike computer viruses and worms, Trojans generally do not attempt to inject themselves into other files or otherwise propagate themselves.

✓ Virus. A computer virus is a type of malicious software program ("malware") that, when executed, replicates itself by modifying other computer programs and inserting its own code. Infected computer programs can include, as well, data files, or the "boot" sector of the hard drive.

✓ Worms. A computer worm is a standalone malware computer program that replicates itself in order to spread to other computers. Often, it uses a computer network to spread itself, relying on security failures on the target computer to access it.

Q No. 2: Explain spyware in brief.

Answer: Spyware is software that aims to gather information about a person or organization without their knowledge, that may send such information to another entity without the consumer's consent, or that asserts control over a device without the consumer's knowledge.

Q No. 3: What is antivirus software?

Answer: Antivirus or anti-virus software, sometimes known as anti-malware software, is computer software used to prevent, detect and remove malicious software.

Q No. 4: Distinguish between a worm and a Trojan horse?

Answer: The basic difference between a Trojan and worm is in their functionality. Trojan virus comprises of malicious codes that when it is triggered it often result in theft or loss of data. Trojan horse spreads only when one invites this program onto a system. It can spread instantly if you download running files from internet or open email attachment. Worm on the other hand is a kind of program that can easily replicate itself from one system to another without any aid of a host file.

Q No. 5: Explain the data backup and recovery.

Answer: A backup is a copy of data from your database that can be used to reconstruct that data. Backups can be divided into physical backups and logical backups. Physical backups are backups of the physical files used in storing and recovering your database, such as data files, control files, and archived redo logs.
Logical backups contain logical data (for example, tables or stored procedures) exported from a database.