

5.	Output operation	6.	Storage operation
7.	Supercomputers	8.	Mainframe computers
9.	Mainframe computers	10.	Minicomputers
11.	Minicomputers	12.	Microcomputers
13.	Microcomputers	14.	Microcomputers
15.	1939	16.	IoT
17.	Cloud computing	18.	Cloud computing
19.	Data center	20.	Data center
21.	Hardware	22.	Hardware
23.	Hardware	24.	Hardware
25.	Hardware	26.	Software
27.	Software	28.	System software
29.	System software	30.	System software
31.	System software	32.	System software
33.	System software	34.	Operating system
35.	Device driver	36.	Language processor
37.	Assembler	38.	Application software
39.	Productivity software	40.	Business software
41.	Entertainment software	42.	Educational software
43.	Open source software	44.	Shareware
45.	Freeware	46.	Firmware
47.	Internet application security	48.	Input devices
49.	Input devices	50.	Input devices
51.	Input devices	52.	Input devices
53.	Input devices	54.	Pointing devices
55.	Pointing devices	56.	Pointing devices
57.	Pointing devices	58.	Pointing devices
59.	Doug Engelbart	60.	Touch screen
61.	Hand-Held Scanner	62.	Flatbed Scanner
63.	Hard Copy	64.	Output devices
65.	Softcopy	66.	15 to 22 inches
67.	Cathode Ray Tube	68.	Liquid Crystal Display
69.	Light Emitting Diode	70.	Printer
71.	Plotter	72.	Dot matrix printers
73.	Chain printers	74.	Inkjet printers
75.	Laser printers		

### **Q.2 Give short answers of the following questions.**

**Q1: Define computer.**

**Ans.** A computer is an electronic device that accepts data (as Input), performs operations (as Processing) on data at very high speed and produces the results (as Output). It is a programmable machine that executes a programmed list of instructions that it is provided.

**Q2: Define digital computer.**

**Ans.** A digital computer is a machine that can solve problems for people by carrying out instructions given to it.

**Q3: Give some examples of computing devices.**

**Ans.** Following are some computing devices:

- ATM machine
- Digital alarm clock
- Digital washing machine
- Microwave oven

- Toys
- Cell phones
- CD player

**Q4: Give some examples of computing devices.**

**Ans.**

1. The computer of ATM machine gives banking transactions facilities.
2. The computer of digital alarm clock sets the time for alarm and manages calendar.
3. The computer of digital washing machine can be programmed to wash clothes.

**Q5: Briefly describe the purpose of a computer system.**

**Ans.** The purpose of a computer system is to accept data, process it and as a result of processing, produce output in the form of useful information. The input unit of computer presents data to the processor for processing. The results of processing of the data are displayed on the monitor screen, printed on paper or sent to any other output or storage device.

**Q6: Describe the factors on which we can classify the computers.**

**Ans.** There are several factors that make computers different from each other. These factors are physical size, cost, speed, etc. Based on these factors, computers are classified into four categories.

- |                   |                        |
|-------------------|------------------------|
| 1) Supercomputers | 2) Mainframe computers |
| 3) Minicomputers  | 4) Microcomputers      |

**Q7: Give some uses of supercomputers.**

**Ans.**

1. Supercomputers are also used in nuclear research and weather forecasting, which requires huge amount of calculations to be performed at high speed.
2. In Pakistan, supercomputers are used in many organizations, like Atomic Energy Research Centre.

**Q8: Give some uses and examples of mainframe computers.**

**Ans. Uses:** Mainframe computers are used in large corporations, banks, universities and scientific laboratories.

**Examples:** Some examples of mainframe are IBM's Enterprize EC12, EC 196 and HP 16500 Series.

**Q9: Give some uses and examples of minicomputers.**

**Ans. Uses:** Minicomputers are widely used in industrial process control, scientific research and small business applications.

**Examples:** Examples of minicomputer are IBM System/36 and HP 3000.

**Q10: Give some uses and examples of microcomputers.**

**Ans. Uses:** Microcomputers are used at home for personal use as well as for business applications. A large variety of software is available for use on microcomputers.

**Examples:** Some examples of microcomputer are IBM Thinkpad, Toshiba Satellite series, Dell XPS, HP Envy series and Apple series.

**Q11: Name some popular mobile computing devices.**

**Ans.** Following are popular mobile computing devices:

- ⇒ Tablet PCs
- ⇒ PDAs (Personal Digital Assistants)
- ⇒ Smart phones

**Q12: Which smart devices are used in IoT?**

**Ans.** All kinds of household items can be modified to work in an Internet of Things system. These device are known as smart devices and they are designed in such a way that they can interact with human beings through wireless connection.

**Q13: Describe advantages of cloud computing.**

**Ans.** The advantage of cloud computing is that you do not have to buy and maintain a complex computer system. This cuts cost of buying computers and peripherals. Besides, you are not worried about equipment going out of date and other problems related with-system security and reliability.

**Q14: Describe disadvantages of cloud computing.**

**Ans.** The disadvantage of cloud computing is that it requires a reliable high speed broadband connection functioning the whole time you are working. Another disadvantage of cloud computing is the privacy and security risk of having valuable data on someone else's system in an unknown location.

**Q15: Define data centers.**

**Ans.** Data center is a centralized location for collecting, storing, processing and distribution of vast amount of data.

**Q16: State the use of data center.**

**Ans.** Organizations such as government agencies, banks, educational institution, telecommunication companies and social networking services use large amount of data and thus have requirement for data center. Many companies are moving their data centers to cloud services to cut the cost of running their own computing networks and servers.

**Q17: Give some examples of computer hardware.**

**Ans.** All physical components of computer system, such as monitor, keyboard, hard disk, printer, along with the circuitry connecting them are known as computer hardware.

**Q18: What is the need of software?**

**Ans.** A computer cannot do anything on its own. It must be instructed to do a desired job. Hence, it is necessary to specify a sequence of instructions, which a computer must perform to solve a problem.

**Q19: Give some examples of software.**

**Ans.** Word-processing software, spreadsheet software and database management software may contain many programs for creating, editing, formatting and printing different types of documents.

**Q20: Name the types of computer software.**

**Ans.** Computer software can be classified into the following types:

- ⇒ System Software
- ⇒ Application Software
- ⇒ Internet Applications
- ⇒ Licensed Software, Open Source Software, Shareware and Freeware

**Q21: What is the purpose of system software?**

**Ans.** The purpose of system software is to make the use of computer more effective and efficient. A computer without some kind of system software would be ineffective and impossible to operate.

**Q22: Give some examples of system software.**

**Ans.** Some examples of system software are:

- ⇒ Operating system
- ⇒ Device Drivers
- ⇒ Utility Software
- ⇒ Language Processors/Translators

**Q23: Name some commonly used operating system.**

**Ans.** Some commonly used operating systems are Windows, Linux, Mac OS and Android.

**Q24: Which tasks are performed by operating system?**

**Ans.** Operating system performs the following tasks:

- ⇒ Allocates system resources
- ⇒ Manages files by maintaining a proper file and folder system
- ⇒ Loads and executes application software
- ⇒ Controls the operation of all the input/output devices
- ⇒ Maintains security

- ⇒ Controls network operations
- ⇒ Provides user interface

**Q25: What is meant by Plug n Play Devices?**

**Ans.** Some devices like Mouse, Keyboard, Monitor, USB Flash drive, etc. are "Plug n Play" devices. Their software is preinstalled with Windows. When attached, the computer system automatically recognizes them.

**Q26: Name few important utilities of windows.**

**Ans.** A few important utilities are disk defragmenter, disk cleaner, file compression utilities, antivirus utility, file manager, network utilities and utilities to configure hardware devices.

**Q27: Define assembler.**

**Ans.** Assembler is software that translates assembly language program into machine language.

**Q28: Define compiler.**

**Ans.** Compiler is software that translates a program written in a high-level language into machine language. It converts the entire program into machine language before execution by the computer.

**Q29: Define interpreter.**

**Ans.** Interpreter is software that translates high-level language into machine language but it translates one instruction at a time and executes it immediately before the translation of the next instruction.

**Q30: Give some examples of application software.**

**Ans.** Some examples of application software are:

- ⇒ Productivity Software
- ⇒ Business Software
- ⇒ Entertainment Software
- ⇒ Educational Software

**Q31: What are the important internet applications?**

**Ans.** Following are the important internet applications:

- ⇒ Web Applications
- ⇒ Cloud Computing Applications
- ⇒ Social Media Network Applications

**Q32: What is meant by web application?**

**Ans.** A web application is a program that runs on a remote server while its users interact with it through a Web browser.

**Q33: What is meant by copyright law?**

**Ans.** The software license deals with the Copyright Law. Copyright law prevents illegal copying of computer software. It allows creators of computer software to benefit financially from their software and to retain some control over how it is used.

**Q34: Name some examples of freeware.**

**Ans.** Some examples of freeware are:

- ⇒ Skype
- ⇒ Viber
- ⇒ Mozilla Web browser

**Q35: Name some parts of Internet application security system.**

**Ans.** Internet application security system consists of following programs:

- ⇒ Firewalls
- ⇒ Anti-Virus Programs
- ⇒ Spyware Detection
- ⇒ Removal Programs
- ⇒ Encryption/Decryption Programs

**Q36: Name some input devices.**

**Ans.** Some input devices are as follows:

- ⇒ Keyboard

- ⇒ Mouse
- ⇒ Joystick
- ⇒ Microphone
- ⇒ Image Scanners

**Q37: Name some commonly used pointing devices.**

**Ans.** Commonly used pointing devices are as follows:

- ⇒ Mouse
- ⇒ Trackball
- ⇒ Joystick
- ⇒ Touch Screen
- ⇒ Light Pen
- ⇒ Touch Pad

**Q38: Write down the uses of scanners.**

**Ans.** Nowadays, scanners are widely used to get drawings, diagrams and photographs into computer systems for incorporation into documents and books which are made up electronically prior to printing.

**Q39: Name the different types of scanners.**

**Ans.** There are different types of scanners like:

- ⇒ Hand-Held Scanner
- ⇒ Flatbed Scanner
- ⇒ Barcode Reader

**Q40: What are the uses of hand-held scanners?**

**Ans.** Hand-held scanners are very useful for scanning articles from magazine, newspapers and books.

**Q41: What is meant by hardcopy?**

**Ans.** The output generated on paper by an output device such as printer or plotter is called Hardcopy output.

**Q42: What is meant by softcopy?**

**Ans.** The output in the form of data or information stored on a storage device or displayed on a monitor is called Softcopy output.

**Q43: Name common types of monitors.**

**Ans.** The common types of monitors are as follows:

- ⇒ CRT (Cathode Ray Tube)
- ⇒ LCD (Liquid Crystal Display)
- ⇒ LED (Light Emitting Diodes)

**Q44: Write down few characteristics of printers.**

**Ans.** Printers vary in their capabilities based on the following characteristics.

- ⇒ The quality of output
- ⇒ The ability to print graphics
- ⇒ The printing speed

**Q45: What are the main categories of printers?**

**Ans.** There are two main categories of printers.

- ⇒ Impact printers
- ⇒ Non-impact printers

**Q46: How many types of plotters are there?**

**Ans.** Plotters are of two types, which are as follows:

- ⇒ Flatbed Plotter
- ⇒ Drum Plotter

**Q47: Describe the use of speakers**

**Ans.** Speakers are audio output devices that are attached to the sound card on motherboard. Speakers produce softcopy output in the form of voice.



