1st Year | # COMPUTER SCIENCE (11th Class) | www.pakcity.org

⭐ Unit 1: Basics of Information Technology ⭐

Q1: **What is Data?**

Ans: A collection of raw facts and figures, collected for a specific purpose is called data. The data may be in the form of text, numbers, images, video clips and audio etc.

Q2: **What is Data Processing?**

Ans: The process of converting data into useful information is called data processing. Data processing is also called computing.

Q3: **Define information.**

Ans: The processed data is called information. As it gives clear and proper meaning, so it can be used for decision making.

Q4: **What is Information Technology?**

Ans: Information technology is the use of modern technology. This term is used for storage, processing, analysis and high speed communication of information. Information can be represented by comp text, photos, audio and video etc.

Q5: **What is digital convergence?**

Ans: The electronic merging of different organizations, industries and institutions between them is called digital convergence.

Q6: **What is Artificial Intelligence?**

Ans: It is the latest technology which is used in some electronic machines communicate like humans.

Q7: **What is computer?**

Ans: A computer is an electronic device that can be programmed to accept data, process it into useful information, and also store it for later use.

Q8: **Define hardware.**

Ans: The physical components of a computer are called hardware. Mouse and keyboard are examples of hardware.

Q9: **Define Software?**

Ans: A set of instructions given to the computer to solve a particular problem or to perform a specific task is called software. There are two types of software called system software and application software.

Q10: **What is system software?**

Ans: A program or set of programs that is specially designed to control different operations of computer system is called system software. It controls the working of different parts of the computer. Operating system and device drivers are some examples of system software.

Q11: **What is application software?**

Ans: A program or set of programs that is specially designed to solve the specific problem of a user is called application software. It is also known as application package.

Q12: <u>What is customized software?</u>

Ans: The type of application software that is developed for a particular organization or a customer is called custom-built software. It is also known as customized software. A software developed for a particular university is an example of customized software.

Q13: <u>What is package software?</u>

Ans: Package software is a type of application software that is developed for sale to the general public. It is also known as off-the-shelf software. MS Word is an example of package software.

Q14: What do you mean by Input?

Ans: Anything given to the computer is called input such as data or instructions.

Q15: <u>What do you know about input devices?</u>

Ans: The devices that are used to enter data and instructions into the computer are called input devices. For example, keyboard, mouse and microphone etc. are input devices.

Q16: <u>What is direct input?</u>

Ans: In this method, data goes directly to the computer from the source. For example, a speech enters into the computer directly through a microphone.

Q17: <u>What is indirect input?</u>

Ans: In this method, some intermediate handling is required to enter data. The data entered into computer through keyboard and mouse which are examples of indirect input.

Q18: <u>Define Keyboard?</u>

Ans: The important input device to enter data or instructions into the computer is keyboard. A standard arrangement of keys is the QWERTY arrangement.

Q19: <u>What are pointing devices?</u>

Ans: A pointing device is an input device. It is used to control the movement of pointer or cursor on the screen. Some common pointing devices are: Mouse, Trackball, Pointing stick, Joysticks, Touchpad, Touch screen, Light pen etc.

Q20: <u>What is the function of mouse?</u>

Ans: Mouse is a pointing device. It is an input device used to select, point, open or drag any type of icon. It is small hand held unit with two or three buttons. It rolls over the small ball. It is also used to draw pictures or to play games in computer.

Q21: <u>What is trackball?</u>

Ans: Trackball is a pointing device used as an alternative to a mouse. The user can control cursor on screen by rolling a plastic ball with a fingertip or wrist. The body of the trackball is not moved.

Q22: <u>What is touch pad or track pad?</u>

Ans: Touchpad is a pressure-sensitive pointing device. It is also known as track pad. It is also stationary device like trackball but it has no moving part. It has small surface over which we slide our fingertips to move the pointer on the screen.

Q23: Define light pen.

Ans: The light pen is handheld pointing input device. It is a light sensitive stylus, or pen like device. It is connected by a wire to the computer. The pen sends information to the computer when user touches the pen on specific areas of a specially designed screen.

Q24: What is stylus?

Ans: Stylus is a ballpoint-like electronic pen. It is used to create sketches and images on a specially designed graphics screen or digitizer. Styles are used in graphical applications such as Computer Aided Design (CAD).

Q25: What are source-data entry devices?

Ans: The devices that are used for direct data entry to the computer system are called direct data entry devices. These devices are also known as direct input devices. The commonly used source data entry devices are barcode reader, MICR, fax machine etc.

Q26: What is joystick?

Ans: It is a pointing device mostly used for playing games. It consists of a base and a stick. The stick can be moved in any direction to move an object around the computer screen.

Q27: What is a touch screen?

Ans: It is a video display screen that receives input from the touch of finger. The screen is covered with plastic layer and invisible beams of infrared light are present behind it. It is commonly used in ATM, departmental stores and supermarkets.

Q28: What is a pointing stick?

Ans: It is a pressure-sensitive pointing device. It is similar to a pencil eraser and exists between keys on the keyboard. The cursor on the screen moves when the user pushes the pointing stick. It is normally used with notebook computers.

Q29: What is digitizer/graphics tablet?

Ans: It consists of a flat pad (the tablet) connected by wire to a stylus or puck. A stylus is a pen-like device used to create sketches and images. A puck is a copying device used to copy an image.

Q30: Define mark and character recognition devices.

Ans: These devices are used to read information printed on paper. These devices convert this information into a form that can be processed by the computer.

Q31: Define MICR?

Ans: It stands for Magnetic-Ink Character Recognition Reader. It is used to read text printed with magnetized ink. It is used by bank for check processing. Each check contains MICR characters at lower-left edge. These characters represent check number, bank number and account number.

Q32: Define OCR?

Ans: It stands for Optical Character Recognition. It reads printed characters in particular font and converts them into digital code. Most OCR devices use a small optical scanner to read characters. OCR characters appear on utility bills and price tags in departmental stores.

Q33: Define OMR?

Ans: It stands for Optical Marks Recognition. These devices use light beam to read data. The data is converted into digital signals. The signals are then sent to the computer for further processing. These devices are used to check test such as SAT and GRE etc.

Q34: What are Magnetic Strip Cards?

Ans: Magnetic Strip Card has a magnetically encoded data on its back. The Magnetic Strips are used in many plastic cards such as personal identity cards. The Magnetic Strip can store the personal details of the card owner. It can be used to access secure information such as bank account details etc.

Q35: What are Smart Cards?

Ans: Smart Card is similar to credit card or ATM card. It contains thin microprocessor and memory chip that is embedded in the card. The card is inserted into a specialized card reader. Mobile SIM card and ATM card are examples of smart cards.

Q36: What is bar Code?

Ans: Bar code is a unique identification code. It is in the form of light and dark vertical lines or bars with spaces between them of different widths. Bar code is printed on most of the manufactured products. The most popular and commonly used bar code is UPC (Universal Product Code).

Q37: What is bar code reader?

Ans: A Bar-Code Reader is a special scanning device. It is used for reading bar codes printed on the products or Books.

Q38: What is facsimile?

Ans: A fax machine is also known as facsimile transmission machine. A fax machine is used to send and receive information through telephone line.

Q39: What is Dedicated Fax Machine?

Ans: It is a normal fax machine. It can send information to another fax machine. It can also receive information from another fax machine.

Q40: What is Fax Modem?

Ans: It is a circuit board inside the system unit. It can send and receive information to and from another computer. It can also send information to a fax machine.

Q41: What is audio Input?

Ans: The process of entering any sound into the computer is known as audio input. It may include speech and music etc. Audio can be entered through microphone.

Q42: What do you know about audio input devices?

Ans: The devices that are used to enter/record sound into the computer are called audio input devices. Microphone is most commonly used as an audio-input device. The main purpose of audio input device is to provide digital input for multimedia computers.

Q43: What is video Input?

Ans: The process of entering video data into a computer is called video input. Video input consists of full-motion images that create action and movements.

Q44: What do you know about video input devices?

Ans: The devices that are used to enter video input into the computer are called video input devices. Mostly these devices are used for recording movies and video images. VCR and Video camera are examples of Video input devices.

Q45: <u>What is digital camera?</u>

Ans: A digital camera is an input device. It is used to take pictures in digital form. It does not use traditional camera film. The pictures taken with digital camera can be transferred to a computer.

Q46: <u>What is meant by output?</u>

Ans: The processed data into a useful form is called output. The user can receive output from the computer on a screen or print on the paper through printer.

Q47: <u>Define softcopy output?</u>

Ans: The output received on the display screen such as monitor or LCD is called softcopy output. It can be easily modified and duplicated without cost.

Q48: <u>Define Hardcopy output?</u>

Ans: The output printed on the paper is called hardcopy. It may be in the form of text and graphics. The output devices to produce hard copy are printers and plotters.

Q49: <u>What are output devices?</u>

Ans: A hardware component which is used to receive the output from computer is called an output device. It takes information from computer and converts it in a form that is understandable by user.

Q50: <u>What is display screen (Monitor)?</u>

Ans: Display screen is commonly used output device. It is used as softcopy output device. The output may be in the form of text, graphics and video. Display screen is also referred as monitor or simply screen.

Q51: <u>What is VGA?</u>

Ans: VGA stands for Video Graphics Array. It supports 16 to 256 colors, depending upon screen resolution. It supports 16 colors for a screen having resolution 320 x 200 pixels. It supports 256 colors for a screen having resolution 640 x 840 pixels. It is called 4-bit color.

Q52: <u>What is SVGA?</u>

Ans: SVGA stands for Super Video Graphics Array. It has higher resolution than VGA. It has two graphics modes such as 800 x 600 pixels and 1024 x 768 pixels. It supports 56 colors. It is called 8-bit color.

Q53: <u>What is XGA?</u>

Ans: XGA stands for Extended Graphics Array. It supports up to 6.7 million colors at a resolution of 1024 x 768 pixels. It is called 24-bit color or true color.

Q54: <u>What is CRT monitor?</u>

Ans: CRT stands for Cathode-Ray Tube. The most common of display screens is the CRT monitor. It looks like TV set screen. It contains a cathode ray tube. A cathode ray tube is a vacuum tube. It creates the image of the output and displays on the screen. The front of the tube is the screen.

Q55: <u>What is flat panel monitor?</u>

Ans: Flat-panel displays are used in portable computers. They are much thinner, weightless, and consume less power than CRT. Flat-Panel displays are made up of two plates of glass. These plates contain a substance in between them.

Q56: **What is LCD Monitor?**

Ans: LCD uses liquid crystal between the glass plates. The output image is formed by liquid crystal. When an electronic current passes through liquid crystal, its molecules line up in such a way that lighting behind the screen is blocked or allowed to create an image.

Q57: **Write three technologies used in flat panel monitor.**

Ans: There are three types of technologies used in Flat-Panel Display screen.

1. Liquid Crystal Display (LCD)
2. Electro-Luminescent Display (ELD)
3. GAS-Plasma Display

Q58: **What do you know about Gas Plasma Display?**

Ans: This display uses gas plasma technology. It is like a neon bulb. Gas plasma display uses gas between the plates. The gas emits light when an electric current is supplied.

Q59: **What is the use of Printer?**

Ans: A printer is an output device that prints characters, symbols and graphics on paper. The printed output is generally referred to as hardcopy.

Q60: **Define Impact Printers.**

Ans: The printers that produce output on paper with striking the paper are known as impact printers. Examples of Impact printers:

1. Dot Matrix printer
2. Daisy Wheel Printer
3. Line printer

Q61: **Define non-impact printers.**

Ans: The printers that produce output on paper without striking the paper are known as non-impact printers. Some examples of non-impact printers are:

1. Laser Printer
2. Inkjet printer
3. Thermal Printer

Q62: **Define dot matrix printers.**

Ans: Dot matrix printer is an impact printer. It has tiny pins arranged to hit the ribbon on the paper. Each letter is formed with a combination of dots. Dot matrix printers have 9, 18, 24 or 32 pins arranged vertically in a print head. These printers can print normally 50 to 600 characters per second.

Q63: **Define daisy wheel printers.**

Ans: Daisy wheel printers use a flat disk or wheel with petal like projections. The wheel rotates to bring the desired character into position. A character is formed when the hammer strikes the petal under it. Daisy wheel printer is slower than dot matrix printer.

Q64: **Define line printers.**

Ans: Line printers can print a complete line at a time. These are high speed printers developed to satisfy the needs of large computer systems. They are further divided into drum printers and band or chain printers. They produce 3000 lines per minute.

Q65: <u>Define Inkjet printers.</u>

Ans: Inkjet printers work in the same way as dot matrix printers except that inkjet printers have fine nozzles instead of tiny pins used in dot matrix print heads. Nozzles spray a stream of ink on the paper.

Q66: <u>Define Laser printers.</u>

Ans: The process used by laser printers is similar to that of office copying to machine. Laser printer produces a variety of letters, graphics, and diagrams by a pattern of very fine dots by the action of laser beam. The laser beam writes the image on the surface of a drum or band in the form of the pattern of electric charged. Laser printers are capable of printing about 10 to 15 pages per minute.

Q67: <u>Define Plotters.</u>

Ans: Plotter is a special output device that produces graphics output in black and white or in different colors form. Plotters produce large drawings or images such as construction plans of buildings or aircraft designs etc. They work just like inkjet printers.

Q68: <u>What are Flatbed Plotters?</u>

Ans: Flatbed Plotter is used to plot or draw image. It contains pens for drawing images. The paper is Page 8 placed on table-like surface. Software instructs the pens to move down on the paper. The pen then moves on the paper for creating images.

Q69: <u>What do you know about Drum Plotter?</u>

Ans: It uses a rotating drum or cylinder. The drawing pens are mounted on the drum. The pens move to the left or right as the drum rotates. This movement creates the desired image.

Q70: <u>Define System.</u>

Ans: A system can be defined as a combination of different related components that interact with each other to perform some specific tasks.

Q71: <u>Define SDLC.</u>

Ans: A set of Activities or steps that are required to develop a system such as software is called system development life cycle (SDLC). It is an organized way to develop a successful system.

Q72: <u>What is Floppy Disk/Diskette?</u>

Ans: It is flexible magnetic disk. It can only store a small amount of data. The standard size of floppy disk is 3 1/2 inch. The capacity of floppy disk is 1.44MB.

Q73: <u>What is Hard Disk?</u>

Ans: It is a type of magnetic disk. It consists of several circular disks called platters. The platters are used to store data. A platter in a hard disk is coated with a magnetic material.

Q74: <u>Define Parallel Conversion.</u>

Ans: It is a type of conversion in which both new and old systems operate together for a period of time. The results of both systems are compared. The old system is used until all problems in new system are removed.

Q75: <u>Define Pilot Conversion.</u>

Ans: It is a type of conversion in which one part of the organization uses the new system and the rest of the organization uses the old system. When one part of the organization is satisfied with the new system, the rest of the organization can start using it.

Q76: <u>What is direct conversion?</u>

Ans: In this type of conversion, old system is directly replaced by new system.

Q77: <u>What is phased conversion?</u>

Ans: It is a type of conversion in which individual components of new system are implemented one by one.

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