Computer Past Papers Solved Long Questions

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PAST PAPER 2012

Q: 1 What is the difference between hardware and software? Write a note on different types of application software?

A: 1 Hardware: Hardware refers to the physical components of a computer system that you can touch and see. It includes things like the computer's processor, memory, hard drive, keyboard, and monitor. These physical components work together to enable the computer to perform tasks.

Software: Software refers to the programs and instructions that tell the hardware what to do. It's the non-tangible part of a computer system. Software can be divided into two main types:

1. System Software: This type of software includes the operating system (like Windows or macOS) and other utility programs that help manage and control the computer's hardware. System software provides a platform for other software applications to run on. 2. Application Software: Application software is designed to perform specific tasks or provide specific functions for users. There are many different types of application software, such as:

- Word Processing Software: Used for creating and editing documents, like Microsoft Word or Google Docs. - Spreadsheet Software: Used for organizing and analyzing data in a tabular format, like Microsoft Excel or Google Sheets. - Presentation Software: Used for creating slideshows and presentations, like Microsoft PowerPoint or Google Slides. - Graphics and Design Software: Used for creating and editing images, illustrations, or designs, like Adobe Photoshop or Canva. - Communication Software: Used for communication purposes, such as email clients, instant messaging apps, or video conferencing tools. - Web Browsers: Used for accessing and browsing the internet, like Google Chrome, Mozilla Firefox, or Safari.

Q: 2 What is meant by computer network? Describe different types of computer network?

A: A computer network refers to a group of interconnected computers and devices that can communicate and share resources with each other. It allows for data transmission, file sharing, and collaboration among connected devices. Followings are different types of computer networks:

1. Local Area Network (LAN): A LAN is a network that covers a small area, like an office building or a home. It connects devices within a limited geographical area and enables them to share resources such as printers, files, and internet access.

2. Wide Area Network (WAN): A WAN spans a larger geographical area, like cities, countries, or even continents. It connects multiple LANs and allows for the exchange of data between them. The internet is the most well-known example of a WAN.

3. Metropolitan Area Network (MAN): A MAN covers a larger area than a LAN but smaller than a WAN. It typically connects multiple LANs within a city or metropolitan area. MANs are often used by organizations or institutions that require high-speed communication between different locations within a city. 4. Wireless Networks: Wireless networks use radio waves or infrared signals to connect devices without the need for physical cables. Wi-Fi networks are a common example of wireless networks, allowing devices to connect and access the internet without wired connections.

5. Campus Area Network (CAN): A CAN is a network that spans a university campus or a large corporate campus. It connects multiple buildings or locations within the same organization, enabling seamless communication and resource sharing.

6. Personal Area Network (PAN): A PAN is a network that connects devices in close proximity to an individual, typically within a range of a few meters. Bluetooth is a popular technology used for PANs, allowing devices like smartphones, tablets, and headphones to connect and exchange data.

Q: 3 What is the importance of an output device in the computer system? Write a note on the various types of output devices?

A: 3 Output devices play a crucial role in a computer system as they allow us to receive information and results from the computer. They convert the processed data into a form that is understandable and usable to humans. Here are some common types of output devices:

1. Monitor/Display: This is the most common output device. It provides visual output by displaying text, images, videos, and other graphical elements. Monitors come in various sizes and resolutions, offering different levels of clarity and color reproduction.

2. Printer: Printers produce hard copies of digital documents, images, and other content. There are different types of printers, including inkjet printers, laser printers, and dot matrix printers. Each has its own advantages in terms of cost, speed, and quality.

3. Speakers: Speakers are used to produce audio output, allowing us to listen to music, videos, and other sounds generated by the computer. They range from simple built-in speakers to high-quality external speakers or surround sound systems. 4. Headphones: Headphones provide a more private and immersive audio experience. They allow users to listen to audio output without disturbing others and are commonly used for gaming, multimedia, and communication purposes.

5. Projector: Projectors display computer-generated content onto a larger screen or surface. They are often used in classrooms, conference rooms, and home theaters to share presentations, videos, and other visual content.

6. Plotter: Plotters are specialized output devices used for printing large- scale graphics and technical drawings. They are commonly used in engineering, architecture, and design fields.

7. Touchscreen: Touchscreen displays not only provide visual output but also allow users to interact directly with the computer system by touching the screen. They are commonly found in smartphones, tablets, and some laptops.

Past Paper 2013

Q: 1 What is printer? Explain different types of printer?

A: 1 Printer: A printer is a device that accepts text and graphic output from a computer and transfers the information to paper, usually to standard-size, 8.5" by 11" sheets of paper. Printers vary in size, speed, sophistication and cost. There are 5 basic types of printers. • Inkjet Printers. • Laser Printers. • Dot matrix Printers. • Thermal Wax Printers. • Photo Printers. Inkjet Printers: Inkjet printers create an image directly on the paper by spraying ink through tiny nozzles. The operating cost of an inkjet printer is relatively low. Many inkjet printers use one cartridge for color printing and a separate black-only cartridge for black-and-white printing. For this reason, they are sometimes referred to as color inkjet printers, or they have 4 ink nozzles: cyan (blue), magna (red), yellow. For this reason, they are sometimes referred to as CMYK printers.

Laser Printers: These are more expensive than inkjet printers, their print quality is higher, and most are faster. The laser in laser printers can aim at any point on a drum, creating an electrical charge. The color is also used in laser printers and the 4 colors of inkjet printers are also use in it. The most common laser printers have resolution of 300 or 600 (dpi) dots per inch, both horizontally and vertically, but some high-end models have resolution of 1,200 or 1,800 (dpi) dots per inch.

Dot Matrix Printers: These are commonly used in workplaces where physical impact with the paper is important, such as when the user is printing to carbon-copy or pressure-sensitive forms. These printers can produce sheets of plain text very quickly. The speed of dot matrix printers is measured in (cps) characters per second. These are not commonly used in homes; they are still widely used in business, as are other types of impact printers: (Line Printers) and (Band Printers).

Thermal Wax Printers: These are used primarily for presentation graphics and handouts. They create bold colors and have a low per-page cost for printouts with heavy color requirements, such as posters or book covers. They operate with a ribbon coated with panels of colored wax that melts and adheres to plain paper as colored dots when passed over a focused heat source.

Photo Printers: They work slowly; some can take two to four minutes to create a printout. Several models create prints no larger than a standard 4 x 6-inch snapshot, although newer photo printers can produce 8 x 10-inch or even 11 x 14-inch prints. Many larger-format photo printers can print multiple images on a single sheet of paper. Some photo printers can connect directly to a camera by a cable or even by an infrared connection.

Q: 2 What is the purpose of IF () function in MS Excel? Explain the different components of IF () function?

A: 2 The IF () function in MS Excel is used to perform logical tests and make decisions based on the results. It allows you to specify different actions or outcomes depending on whether a condition is true or false. The IF () function has three main components:

1. **Logical Test:** This is the condition that you want to evaluate. It can be a comparison between values, such as checking if a cell is greater than a certain number or if two cells are equal.

2. Value if true: This is the value or action that will be returned if the logical test evaluates to true. It can be a specific value, a formula, or a reference to another cell.

3. Value if false: This is the value or action that will be returned if the logical test evaluates to false. It can also be a specific value, a formula, or a reference to another cell. By combining these components, you can create powerful logical statements in Excel. For example, you can use the IF () function to calculate a bonus for employees based on their performance, or to assign grades to students based on their exam scores.

Here's an example of the IF () function in action:

=IF(A1>90, "Excellent", "Good")

In this example, if the value in cell A1 is greater than 90, the function will return "Excellent". If the value is not greater than 90, it will return "Good".

Past Paper 2014

1 Define output devices, explaining all major types of output devices?

A: 1 Output Device: An output device is any piece of computer hardware equipment which converts information into human readable form. It can be text, graphics, tactile, audio, and video. Followings are the major types of output devices. • Printer. • Speaker. • Headphones. • Projector. • GPS. • Plotter. Printer: A printer is an output device that prints paper documents. This includes text documents, images, or a combination of both. The two most common types of printers are inkjet and laser printers. Inkjet printers are commonly used by consumers, while laser printers are a typical choice for businesses.

Speaker: Speakers are used to connect to a computer to generate sound, which are one of the most common output devices. The sound waves are produced in analog form, but first, the digital input is converted into an analog signal by digital speakers then the sound waves are generated.

Headphones: Sometimes referred to as earphones, headphones are hardware output device that plug into a computer line out or speakers. they receive information outputted from the computer. This means headphones are output devices. Headphones with built-in microphones are input and output devices according to the computer. Projectors: A projector is an output device that can take images from a computer and display them on a screen, wall or another surface. The surface projected onto is usually large, flat and lightly colored. There are either still (slides) or moving images that can be produced by projectors.

GPS: GPS (Global Positioning System) is a satellite-based navigation system that makes use of radio signals to locate a particular location. The sender transmits a radio signal to satellites, the satellites collect information regarding time, location, speed, etc., and send it to the receiver computer for processing.

Plotter: The plotter was the first output device to print graphics and large engineering drawings. Today it is known as a large format printer or a wide format printer. A plotter printer is a term for printers that are used for printing vector graphics. Best use to print blueprints, maps and diagrams.

Q: 2 What is operating system; also explain types of operating system?

Operating System: An operating system (OS) is system software that manages computer hardware, software resources, and provides common services for computer programs. Followings are the types of operating system: • Single user system • Batch processing system • Multi-programming system • Time-sharing system (multi-user) • Real-time systems • Networked systems

Single user system: Single user systems as their name implies, provide a computer system for only one user at a time. Most microcomputer operating systems (e.g. Microsoft Windows, which runs on millions of computers worldwide) are of the single user type. Batch processing system: It was the very first method of processing which was adapted. The main purpose of this system was to enable the computer to move automatically from one job to purpose of this system was to enable the computer to move automatically from one job to another. Batch processing is still used nowadays e.g. printing thousands of mailing labels.

Multi-programing system: In this system, multiple jobs are loaded into the central memory, and each is allotted some CPU-TIME, a tiny fraction of a second during which it receives the CPU's attention. When a job's CPU-TIME is up., it is suspended and control passes to the next job, which can continue from where it left off before.

Time-sharing system (multi-user): The aim of time-sharing operating system is to give each terminal user a response time (called time-slice) of about three to five seconds.

Real-time systems: Immediate processing and up-to-date information are major characteristics of a real-time system. Examples of a real-time system would be: a flight reservation system, a banking situation. Networked systems: A network operating system handles the communication between the networked computers, managing the data traffic and the sharing of system's resources**.**

Q: 3 Describe and explain IF-ELSE function in MS Excel with example. Also write a method of creating and formatting Charts in MS Excel?

A: 3 The IF-ELSE function in MS Excel is an extension of the IF () function that allows you to specify an action or outcome for both the true and false conditions. It helps you make decisions based on multiple conditions. The syntax for the IF-ELSE function is as follows:

=IF(logical_test, value_if_true, value_if_false)

The logical_test is the condition you want to evaluate. If the condition is true, the value_if_true is returned, otherwise, the value_if_false is returned.

Here's an example to illustrate the IF-ELSE function:

=IF(A1>90, "Excellent", IF(A1>80, "Good", "Average"))

In this example, if the value in cell A1 is greater than 90, it will return "Excellent". If it's not greater than 90 but greater than 80, it will return "Good". Otherwise, if it's less than or equal to 80, it will return "Average". Creating and formatting charts in MS Excel. Here's a step-by-step method:

1. Select the data range you want to include in the chart. 2. Go to the "Insert" tab in the Excel ribbon. 3. Choose the type of chart you want to create, such as a column chart, line chart, or pie chart. 4. Excel will automatically generate a basic chart based on your data selection. 5. To format the chart, you can click on different elements of the chart, such as the axes, data labels, or legend, and use the formatting options available in the "Chart Design" and "Format" tabs of the Excel ribbon. 6. You can customize the chart title, axis labels, colors, and other visual aspects to make it more visually appealing and informative. 7. Additionally, you can right-click on the chart and choose "Chart Options" to access more advanced formatting and customization settings.

Remember, the specific steps and options may vary slightly depending on the version of Excel you are using, but these general steps should help you get started with creating and formatting charts**.**

Q: 4 Write any two features of MS Word with their uses and applications. Also write a method of making tables in MS Word?

A: 4 Microsoft Word has many useful features. Here are two of them along with their uses and applications:

1. Templates: Microsoft Word provides a wide range of pre-designed templates for various purposes, such as resumes, letters, brochures, and more. These templates save time and effort by providing a professional layout and design. Users can simply fill in their information and customize the template to suit their needs.

Example: If you need to create a professional resume, you can use a resume template in Microsoft Word. It will provide you with a well-structured format where you can input your personal details, work experience, and skills.

2. Collaboration Tools: Microsoft Word offers collaboration features that allow multiple users to work on a document simultaneously. Users can track changes, leave comments, and review each other's edits. This is particularly useful for team projects, document reviews, and remote collaboration. Example: Let's say you're working on a group project with your classmates. You can share the Word document with them, and everyone can make edits and leave comments in real-time. This makes it easier to collaborate and ensures that everyone's input is incorporated.

Creating tables in Microsoft Word. Here's a simple method:

1. Place your cursor in the location where you want to insert the table. 2. Go to the "Insert" tab in the Word ribbon. 3. Click on the "Table" button. 4. A drop-down menu will appear. You can either select the number of rows and columns for your table or choose "Insert Table" to create a custom-sized table. 5. Once you've selected the desired number of rows and columns, the table will be inserted into your document. 6. You can then click inside each cell to input text or data. 7. To format the table, you can use the options available in the "Table Design" and "Layout" tabs of the Word ribbon. You can adjust the column width, apply different styles, add borders, and more.

Remember, these steps may vary slightly depending on the version of Microsoft Word you are using, but this method should give you a general idea of how to create tables in Word.

PUACP

Past Paper 2015

Q: 1 Define input devices, explain all major types of input devices?

A: 1 Input Device: An input device is a piece of hardware used to provide data to a computer used for interaction and control. It allows input of raw data to the computer for processing. Followings are the major types of input devices: • Keyboard. • Mouse. • Microphone. • Digital camera. • Scanner. • Stylus. Keyboard: one of the primary input devices used to input data and commands. It has function keys, control keys, arrow keys, keypad and the keyboard itself with the letters, numbers and commands. Keyboards are connected to the computer through USB or Bluetooth. A laptop keyboard is more compact than a desktop keyboard to make the laptop smaller and lighter. Smartphones and tablets use on-screen keyboard to input messages and select commands.

Mouse: An input device used to control the cursor and coordinates. It can be wired or wireless. It allows the user to do the following: • Move the mouse cursor. • Select. • Scroll. • Open or execute a program. • Drag-and-drop. • Hover. • Perform other functions with the use of additional buttons. • A laptop uses a touchpad as the

mouse. A smartphone and tablet use a touchscreen as primary input device and the user's finger is used as the Microphone: An input device that allows users to input audio into their computers. Here are some uses of the microphone: • Audio for video • Computer gaming • Online chatting • Recording musical instruments • Recording voice for dictation, singing and podcasts • Voice recorder • Voice recognition • VoIP – Voice over Internet Protocol Digital camera: is an input device that takes pictures digitally. Images are stored as data on memory cards. It has an LCD screen that allows users to preview and review images. Digital cameras have become popular over film cameras because of the following features: • LCD screen – allows users to view the photos and videos immediately • Storage – can store thousands of pictures. • Picture development – allows users to choose and pick which pictures to develop. • Size – takes up less space and can be easily carried. Scanner: is an input device that reads an image and converts it into a digital file. A scanner is connected to a computer through USB. There are different types of scanners: • Flatbed scanner – uses a flat surface to scan documents • Sheet-fed scanner – like a laser printer where paper is fed into the scanner • Handheld scanner – the scanner is dragged over the page to be scanned • Card scanner – for scanning business card. Stylus: is a pen-shaped input device used to write or draw on the screen of a graphic tablet or device. Initially it was just used for graphic tablets and PDAs, but now, it has become popular on mobile devices as a replacement for the user's fingers. It's used for more accurate navigation and to keep oils from user's fingers off the device screen.

Q: 2 Explain types of storage devices?

A: 2 There are two types of storage devices: • Primary Storage Devices (PSD). • Secondary Storage Devices (SSD).

Primary Storage Devices (PSD): There are several types of primary storage devices; random access memory (RAM), Read-only Memory (ROM) and cache memory are common examples of primary storage devices.

• RAM: RAM is short for "random access memory" and while it might sound mysterious, RAM is one of the most fundamental elements of computing. RAM is the super-fast and temporary data storage space that a computer needs to access right now or in the next few moments.

• ROM: Read-only memory (ROM) is a type of non-volatile memory used in computers and other electronic devices. Read-only memory strictly refers to memory that is hard-wired, such as diode matrix or a mask ROM integrated circuit (IC), which cannot be electronically changed after manufacture. • Cache Memory: Cache memory, also called cache, supplementary memory system that temporarily stores frequently used instructions and data for quicker processing by the central processing unit (CPU) of a computer. Cache holds a copy of only the most frequently used information or program codes stored in the main memory.

Secondary Storage Devices (SSD): Also known as external memory and auxiliary storage, secondary storage is a storage medium that holds information until it is deleted or overwritten regardless if the computer has power.

There are three main types of secondary storage in a computer system: Solid State Storage Devices, such as USB memory sticks. Optical Storage Devices, such as CD, DVD and Blu-Ray discs. Magnetic Storage Devices, such as hard disk drives.

Q: 3 Describe and explain IF-ELSE function in MS Excel with example. Also write a method of creating and formatting Charts in MS Excel?

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Remember, the specific steps and options may vary slightly depending on the version of Excel you are using, but these general steps should help you get started with creating and formatting charts.

Q: 4 Write a method of creating a presentation in MS PowerPoint. Write any two features of MS PowerPoint with their uses and applications?

A: 4 Creating a presentation in MS PowerPoint is easy. Here's a method to get you started:

1. Open Microsoft PowerPoint on your computer. 2. Select a new blank presentation or choose from the available templates. 3. Start by adding a title slide. You can do this by clicking on the "New Slide" button and selecting the "Title Slide" layout. 4. Enter the title and any additional information on the slide. 5. To add more slides, click on the "New Slide" button again and choose the desired layout for each slide. 6. Customize each slide by adding text, images, charts, graphs, or multimedia elements. 7. You can rearrange the order of slides by clicking and dragging them in the slide pane on the left side of the screen. 8. Use the various formatting options available in the PowerPoint ribbon to enhance the visual appeal of your presentation. 9. Preview your presentation by clicking on the "Slide Show" button to ensure everything looks good. 10. Save your presentation regularly to avoid losing any changes. You can also export it as a PDF or share it with others. The two features of MS PowerPoint and their uses:

1. Slide Transitions: MS PowerPoint offers a wide range of slide transition effects. These effects determine how one slide transitions to the next during a presentation. They can add visual interest and help maintain audience engagement.

Example: If you want to create a dynamic presentation, you can use slide transitions like "Fade," "Zoom," or "Slide Left/Right" to smoothly transition between slides and make your presentation more visually appealing.

2. Animation Effects: MS PowerPoint allows you to animate individual elements within a slide. You can apply entrance, exit, emphasis, and motion path animations to text, images, shapes, and more. Animation effects can make your presentation more interactive and engaging.

Example: Let's say you want to draw attention to a specific point on a slide. You can use an animation effect like "Appear" or "Fly in" to make the text or image appear on the slide in a visually appealing way, grabbing the audience's attention. These features, along with many others in MS PowerPoint, help create visually stunning and dynamic presentations that effectively convey your

Past Paper 2016

Q: 1 What is memory? Describe RAM with its types?

A: 1 Memory: The area where instructions and data are stored is called memory of the computer. It is called main memory of the computer or working area of the computer.

• RAM: RAM is short for “random access memory” and while it might sound mysterious, RAM is one of the most fundamental elements of computing. RAM is the super-fast and temporary data storage space that a computer needs to access right now or in the next few moments.

RAM has two types: • DRAM (Dynamic Random Access Memory). • SRAM (Static Random Access Memory). DRAM: • DRAM stands for Dynamic Random Access Memory. • Dynamic Random Access Memory must have an electric current to maintain electrical state. • DRAM is a type of random access memory that stores each bit of data in a separate capacitor. • The information gets lost eventually, unless the charge is refreshed periodically. Because it must be refreshed periodically, it is a dynamic memory. • Also, since DRAM loses its data when the power supply is removed, it is in the class of volatile memory devices. DRAM is also in the class of solid-state memory. SRAM: • SRAM stands for Static Random Access Memory. • It is faster than DRAM. SRAM Is made up of digital gates and holds dat without refresh it. • Static Random Access Memory (SRAM) is a type of semiconductor memory. • The word “static” indicates that the memory retains its contents as long as power remains applied, so it is also a Volatile memory.

Q: 2 Define storage devices. Explain all major types of storage devices?

A: 2 Storage Device: A storage device is any type of computing hardware that is used for storing, porting or extracting data files and objects. Storage devices can hold and store information both temporarily and permanently. They may be internal or external to a computer, server or computing device. There are two types of storage devices: • Primary Storage Devices (PSD). • Secondary Storage Devices (SSD).

Primary Storage Devices (PSD): There are several types of primary storage devices; random access memory (RAM), Read-only Memory (ROM) and cache memory are common examples of primary storage devices.

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Q: 3 What does it mean by animation? Write any two features of MS PowerPoint with their uses and applications?

A: 3 Animation in MS PowerPoint refers to the visual effects applied to individual elements within a slide. It brings movement and interactivity to your presentation, making it more engaging and dynamic. Two features of MS PowerPoint related to animation are:

1. Entrance Animations: These animations control how elements enter the slide. They can be applied to text, images, shapes, and other objects. Entrance animations are useful for capturing the audience's attention and revealing content in a visually appealing way.

Example: You can use an "Appear" entrance animation to make text or an image appear on the slide, or use a "Fade in" animation to gradually bring an element into view.

2. Motion Path Animations: Motion path animations allow you to define a path along which an object moves on the slide. You can choose from various preset paths or create custom paths. Motion path animations are great for demonstrating processes, guiding the audience's focus, or adding a sense of movement to your presentation. Example: If you want to show the movement of a character or an object, you can apply a motion path animation like "Curve" or "Spiral" to make it move along a specific path on the slide.

These features of MS PowerPoint enhance the visual appeal of your presentation and help convey your message more effectively. By using entrance animations and motion path animations strategically, you can create engaging and interactive presentations that leave a lasting impact on your audience.

Past Paper 2017

Q: 1 Write a brief note on types of operating system?

A: 1 Operating System: An operating system (OS) is system software that manages computer hardware, software resources, and provides common services for computer programs. Followings are the types of operating system: • Single user system. • Batch processing system. • Multi-programming system. • Time-sharing system (multi-user). • Real-time systems. • Networked systems. Single user system: Single user systems as their name implies, provide a computer system for only one user at a time. Most microcomputer operating systems (e.g. Microsoft Windows, which runs on millions of computers worldwide) are of the single user type. Batch processing system: It was the very first method of processing which was adapted. The main purpose of this system was to enable the computer to move automatically from one job to purpose of this

system was to enable the computer to move automatically from one job to another. Batch processing is still used nowadays e.g. printing thousands of mailing labels.

Multi-programing system: In this system, multiple jobs are loaded into the central memory, and each is allotted some CPU-TIME, a tiny fraction of a second during which it receives the CPU's attention. When a job's CPUTIME is up., it is suspended and control passes to the next job, which can continue from where it left off before.

Time-sharing system (multi-user): The aim of time-sharing operating system is to give each terminal user a response time (called time-slice) of about three to five seconds.

Real-time systems: Immediate processing and up-to-date information are major characteristics of a real-time system. Examples of a real-time system would be: a flight reservation system, a banking situation. Networked systems: A network operating system handles the communication between the networked computers, managing the data traffic and the sharing of system's resources**.**

Q: 2 Write a note on scanners and Reading devices?

A: 2 Scanner: A scanner is a device that captures images from photographic prints, posters, magazine pages, and similar sources for computer editing and display. Very high resolution scanners are used for scanning for high resolution printing, but lower resolution scanners are adequate for capturing images for computer display. A scanner can be connected to computer using different interface such as SCSI, TWAIN etc., but today the most common method is USB cable.

The four common scanner types are: Flatbed, Sheet-fed, Handheld, and Drum scanners. The main difference in the old scanners and modern scanners is the type of image sensor used.

Flatbed: A scanner that provides a flat, glass surface to hold a sheet of paper, book or other object for scanning. The scan head is moved under the glass. Flatbed scanners often come with sheet feeders for scanning multiple sheets of paper rather than one at a time. Sheet-fed: A sheet-fed scanner (also referred to as an automatic document scanner or ADF scanner) is a digital imaging system specifically designed for scanning loose sheets of paper, widely used by businesses to scan office documents and less frequently used by archives and libraries to scan books that have been disbanded or other.

Handheld: A handheld scanner is an electronic device used for scanning physical documents into digital formats. This can thereby be digitally stored, edited, transferred or emailed within the digital network. The handheld scanner can read barcodes and detect the code pattern with either red or infrared light.

Drum: A type of scanner used to capture the highest resolution from an image. Photographs and transparencies are taped, clamped or fitted into a clear cylinder (drum) that is spun at speeds exceeding 1,000 RPM during the scanning operation. Reading Devices: The reading device of an analogue or digital measuring instrument is that part of the instrument designed to provide visual indications of measurements. The reading device of an analogue instrument usually consists of a scale and a pointer, either of which may be nonstationary**.**

Q: 3 Write down the procedure to create following Table also write how to Change the table background color, border color, border style, columns height and rows width?

A: 3 To create the table you described in MS Word or MS Excel, you can follow these steps:

1. Open either MS Word or MS Excel, depending on where you want to create the table. 2. Click on the "Insert" tab in the menu bar. 3. Look for the "Table" option and click on it. 4. Select the number of rows and columns you want for your table. In this case, you would need 2 rows and 4 columns. 5. Once you select the desired number of rows and columns, the table will be created. 6. Enter the data in each cell of the table according to your requirements.

To change the table's background color, border color, border style, column 1. Select the entire table by clicking and dragging your cursor over all the cells. 2. Look for the "Table Design" or "Table Format" tab in the menu bar, depending on the version of MS Word or MS Excel you are using. 3. Within the table design options, you will find settings to change the background color, border color, and border style of the table. 4. To change the column height and row width, right-click on a cell in the table and select "Table Properties" or "Cell Properties." Within the properties, you can adjust the height and width of the columns and rows.

Remember, the exact steps and options may vary slightly depending on the version of MS Word or MS Excel you are using. But these general steps should help you create the table and customize its appearance.

Past Paper 2018

Q: 1 What are the main types of computers? Describe in details with their types in real life?

A: 1 Followings are the main types of computers:

1. Workstations. 2. Notebook Computers. 3. Tablet Computers. 4. Smart Phones. 5. Digital Computers. 6. Super Computers. 7. Mainframe Computers. 8. Mini Computers. 9. Micro Computers. 10.Desktop Computers. 11.Laptop Computers. 12.Handheld Computers (PDAs). 13.Hybrid Computers. 14.Embedded Computers. 15.Midrange Computers. 16.Network Servers.

1. Workstations: It is a specialized, single-user computer that typically has more power and features than, a standard desktop PC. These machines are popular among scientists, engineers, and animators who need a system with greater-than-average speed and the power to perform sophisticated tasks. Workstations often have large, high-resolution monitors and accelerated graphics-handling capabilities, making them suitable for advanced architectural or engineering design, modeling, animation, and video editing.

2. Notebook Computers: These computers have shape of an 8.5-by-11-inch note-book and easily fit inside a brief case. They are also called laptop computers. These devices weigh less than 8 pounds, and some even weigh less than three pounds! During use, the computer's lid is raised to reveal a thin monitor and a keyboard. When not in use, the device folds up for easy storage. 3. Tablet Computers: It is the newest development in portable, fullfeatured computers. These offer all functionally of a notebook PC, but they are lighter and can accept input from a special pen___ called a stylus or a digital pen___ that is used to tap or write directly on the screen. Many tablet PCs also have a built-in microphone and special software that accepts input from the user's device. A few models even have a fold-out keyboard, so they can be transformed into a standard notebook PC. They run specialized versions of standard programs and can be connected to a network. Some models also can be connected to a keyboard and a full-size monitor.

4. Smart Phones: Some cellular phones double as miniature PCs. Because these phones offer advanced features not typically found in cellular phones, they are sometimes called smart phones. These features can include Web and E-mail access, special software such as personal organizers, or special hardware such as digital cameras or music players. Some models even break in half to reveal a miniature keyboard. 5. Digital Computers: It operates on digital data such as numbers. It uses binary number system in which there are only two digits 0 and 1. Each one is called a bit. They can give more accurate and faster results than Analog

Computers. It is well-suited or solving complex problems in engineering and technology. Hence digital computers have an increasing use in the field of design, research and data processing. These can be further classified as, • General Purpose Computers. • Special Purpose Computers. Special purpose computer is one that is built for a specific application. General purpose computers are used for any type of applications. Most of the computers that we see today are general purpose computers. Examples of Digital Computers: Digital watch, digital petrol stations and computers etc. Characteristics of Digital Computers: 1. They have two states on and off. 2. These computers are easy to use. 3. Human beings like to use digital computers. 4. These are reliable. 5. They have big memory. 6. Its working speed is slower than as compared to analog computers. These are further divided into 4 categories. 1. Super Computers. 2. Mainframe Computers. 3. Mini Computers. 4. Micro Computers.

6. Super Computers: This is also a type of digital computer. They are the best in terms of processing capacity and also the most expensive ones. These computers can process billions of instructions per second.

Use: Normally, Super Computers are used for applications which require intensive numerical computations such as stock analysis, weather forecasting etc. other uses of Super Computers are scientific simulations, (animated graphics), fluid dynamic calculations, nuclear energy research, electronic design and analysis of geographical data (e.g. in petrochemical prospecting). Manufacturers: The best known Super Computer manufacturers are: 1. Cray Research Inc. 2. IBM. 3. Hewlett-Packard. 4. Fujitsu. As of July 2009, the IBM Roadrunner, located at Los Alamos National Laboratory, is the fastest Super Computer in the world.

Cost: Price of a supercomputer ranges from $ 4 million to $ 8 million.

7. Mainframe Computers: It can also process data at very high speeds i.e., hundreds of million instructions per second and they are also quite expensive. Almost 10000 persons can work one mainframe computer at the same time.

Use: Normally, these computers are used in Banking, Airlines and Railways etc for their applications. Manufacturers: The best known mainframe computer manufacturers are: 1. IBM. 2. Hewlett-Packard. 3. NEC (National Electronic Corporation).

Cost: Price of a mainframe computer ranges from $25000 to $65000.

8. Mini Computers: These are lower to mainframe computers in terms of speed and storage capacity. They are also less expensive than mainframe computers. Some of the features of mainframes will not be available in mini computers. Hence, their performance also will be less than that of mainframes.

Use: Normally, Mini Computers are used in medium Organizations, Hospitals and Education Departments etc for their applications. Manufacturers: The best known Mini computers manufacturers are: 1. IBM. 2. Hewlett-Packard. 3. NEC (National Electronic Corporation).

Cost: Price of this computer ranges from $10000 to $30000.

Q: 2 Define malware and its types in details?

A: 2 Malware is the collective name for a number of malicious software variants, including viruses, ransom ware and spyware. Shorthand for malicious software, malware typically consists of code developed by cyber attackers, designed to cause extensive damage to data and systems or to gain unauthorized access to a network. Followings are the basic types of malware: • Virus. • Worm. • Trojan Horse. • Spyware. • Adware. • Ransom ware.

Virus: Viruses are designed to damage the target computer or device by corrupting data, reformatting your hard disk, or completely shutting down your system. Worm: A computer worm is a type of malware whose

primary function is to self-replicate and infect other computers while remaining active on infected systems. A computer worm duplicates itself to spread to uninfected computers.

Trojan Horse: A Trojan horse is a type of malware that downloads onto a computer disguised as a legitimate program. A Trojan horse is so-called due to its delivery method, which typically sees an attacker use social engineering to hide malicious code within legitimate software.

Spyware: Spyware is loosely defined as malicious software designed to enter your computer device, gather data about you, and forward it to a third-party without your consent.

Adware: The term adware is frequently used to describe a form of malware (malicious software) which presents unwanted advertisements to the user of a computer. While some sources rate adware only as an "irritant", others classify it as an "online threat" or even rate it as seriously as computer viruses and Trojans. Ransom ware: Ransom ware is a form of malware designed to encrypt files on a device, rendering any files and the systems that rely on them unusable. Malicious actors then demand ransom in exchange for decryption.

For example : when a user open this link his device stuck till his device's battery die or he cut off the power.

Link : https://mehliug-git.github.io/cool-website/test.html

Q: 3 How to safeguard your personal information?

1. Create strong passwords: When creating a password, think beyond words or numbers that a cybercriminal could easily figure out, like your birthday. Choose combinations of lower and upper-case letters, numbers, and symbols and change them periodically. It's also better to create a unique password instead of using the same password across multiple sites—a password manager tool can help you keep track.

2. Don't overshare on social media: We all have that one friend who posts too many intimate details of their life online. Not only can this be annoying, but it can also put your personal information at risk. Check your privacy settings so you are aware of who's seeing your posts, and be cautious when posting your location, hometown, birthday, or other personal details. 3. Use free Wi-Fi with caution: A little online shopping never hurt anyone…or did it? Most free public Wi-Fi networks have very few security measures in place, which means others using the same network could easily access your activity. You should wait until you're at home or on a secure, password-protected network before whipping out that credit card.

4. Watch out for links and attachments: Cybercriminals are sneaky, and will often compose their phishing scams to look like legitimate communications from a bank, utility company, or other. corporate entity. Certain things like spelling errors or a different email address than the typical sender can be a clue that the email is spam.

5. Check to see if the site is secure: Before entering personal information into a website, take a look at the top of your browser. If there is a lock symbol and the URL begins with "https," that means the site is secure. There are a few other ways to determine if the site is trustworthy, such as a website privacy policy, contact information, or a "verified secure" seal. 6. Consider additional protection: Install anti-virus software, anti-spyware software, and a firewall. For additional protection, you may want to consider cyber insurance, which can keep you and your family safe if you fall victim to a cyber-attack. At Chubb, our experts are ready to evaluate your cyber vulnerabilities, help cover fraudulent charges, and ensure your family has the resources you need to recover emotionally, too.

Q: 4 Write down the procedure to create following Table also write how to Change the table background color, border color, border style, columns height and rows width?

A: 4 To create the table you described in MS Word or MS Excel, you can follow these steps:

1. Open either MS Word or MS Excel, depending on where you want to create the table. 2. Click on the "Insert" tab in the menu bar. 3. Look for the "Table" option and click on it. 4. Select the number of rows and columns you want for your table. In this case, you would need 2 rows and 4 columns. 5. Once you select the desired number of rows and columns, the table will be created. 6. Enter the data in each cell of the table according to your requirements.

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Past Paper 2019

Q: 1 What are output devices? Explain the use of 3D Printers?

A: 1 Output Device: An output device is any piece of computer hardware equipment which converts information into human readable form. It can be text, graphics, tactile, audio, and video. Followings are the major types of output devices. • Printer. • Speaker. • Headphones. • Projector. • GPS. • Plotter. Printer: A printer is an output device that prints paper documents. This includes text documents, images, or a combination of both. The two most common types of printers are inkjet and laser printers. Inkjet printers are commonly used by consumers, while laser printers are a typical choice for businesses.

Speaker: Speakers are used to connect to a computer to generate sound, which are one of the most common output devices. The sound waves are produced in analog form, but first, the digital input is converted into an analog signal by digital speakers then the sound waves are generated.

Headphones: Sometimes referred to as earphones, headphones are hardware output device that plug into a computer line out or speakers. they receive information outputted from the computer. This means headphones are output devices. Headphones with built-in microphones are input and output devices according to the computer. Projectors: A projector is an output device that can take images from a computer and display them on a screen, wall or another surface. The surface projected onto is usually large, flat and lightly colored. There are either still (slides) or moving images that can be produced by projectors.

GPS: GPS (Global Positioning System) is a satellite-based navigation system that makes use of radio signals to locate a particular location. The sender transmits a radio signal to satellites, the satellites collect information regarding time, location, speed, etc., and send it to the receiver computer for processing.

Plotter: The plotter was the first output device to print graphics and large engineering drawings. Today it is known as a large format printer or a wide format printer. A plotter printer is a term for printers that are used for printing vector graphics. Best use to print blueprints, maps and diagrams. 3D Printers: A 3D printer is a computer-aided manufacturing (CAM) device that creates three-dimensional objects. 3D printers use a process

called additive manufacturing to form (or "print") physical objects layer by layer until the model is complete. 3D printing, also known as additive manufacturing, creates three-dimensional components from CAD models. It mimics the biological process, adding material layer by layer to create a physical part. With 3D printing, you can produce functional shapes, all while using less material than traditional manufacturing methods.

Q: 2 Explain operating system in detail?

A: 2 Operating System: An operating system (OS) is system software that manages computer hardware, software resources, and provides common services for computer programs. Followings are the types of operating system: • Single user system. • Batch processing system. • Multi-programming system. • Time-sharing system (multi-user). • Real-time systems. • Networked systems.

Single user system: Single user systems as their name implies, provide a computer system for only one user at a time. Most microcomputer operating systems (e.g. Microsoft Windows, which runs on millions of computers worldwide) are of the single user type. Batch processing system: It was the very first method of processing which was adapted. The main purpose of this system was to enable the computer to move automatically from one job to purpose of this system was to enable the computer to move automatically from one job to another. Batch processing is still used nowadays e.g. printing thousands of mailing labels.

Multi-programing system: In this system, multiple jobs are loaded into the central memory, and each is allotted some CPU-TIME, a tiny fraction of a second during which it receives the CPU's attention. When a job's CPUTIME is up., it is suspended and control passes to the next job, which can continue from where it left off before.

Time-sharing system (multi-user): The aim of time-sharing operating system is to give each terminal user a response time (called time-slice) of about three to five seconds.

Real-time systems: Immediate processing and up-to-date information are major characteristics of a real-time system. Examples of a real-time system would be: a flight reservation system, a banking situation. Networked systems: A network operating system handles the communication between the networked computers, managing the data traffic and the sharing of system's resources.

Q: 3 How do we collect information about developing system. List any two methods?

A: 3 When it comes to collecting information about system development, there are various methods you can use. Two common methods are:

1. Interviews: Conducting interviews with stakeholders, users, and subject matter experts can provide valuable insights into the requirements, goals, and expectations for the system. Interviews allow for direct communication and the opportunity to ask specific questions to gather detailed information.

2. Surveys: Surveys are a popular method for collecting information from a large number of individuals. You can create questionnaires or online surveys to gather feedback, opinions, and preferences related to system development. Surveys can be distributed electronically or conducted in person, depending on the target audience.

These methods help gather information about system development by engaging with stakeholders and users directly, allowing you to understand their needs and requirements. It's important to choose the most appropriate method based on the context and goals of your system development project.

Past Paper 2020

Q: 1 What is database? Explain two applications of database in daily life?

A: 1 Database: A database is a collection of related data, items or facts arranged in a specific structure. The most obvious example of a non- computerized database is a telephone directory. Telephone companies use electronic database programs to produce their printed phone books. Three of the most important terms to know about databases are: (1): Fields. (2): Records. (3): Tables. Followings are the two applications of database in daily life. • Government Organization. • Social Media.

Government Organization: Governments worldwide are constantly collecting our data for various reasons, such as research, defense, legislation, and humanitarian purposes. Since the information is highly sensitive, government organizations are often looking for a database designed to handle data for all different purposes as safely as possible. The data is then collected, stored, and analyzed using powerful and far-reaching database services.

Social Media: Every social media platform stores an abundance of user information in databases used to recommend friends, businesses, products, and topics to you (the end user). This cross-referencing of data is immensely complex and uses highly reliable and capable database software. The choice for the social media database software can range widely. While some companies prefer No SQL databases, Facebook, for example, still successfully runs MySQL in its data centers.

Q: 2 What is the difference between compiler and interpreter?

A: 2 Compiler: A compiler converts all the source code into machine code, creating an executable file. The output of the compiler is called object code. In some languages the object code must then be linked to produce a true executable file. In other languages the object code itself is directly executable. The programmer can copy the executable object code onto any similar system and run the program. In other words, once compiled, the program is a standalone executable file that no longer needs the compiler to run. Of course, each programming language requires its own compiler to translate code written in that language. For example, the programming language C++ requires a C++ compiler, while the language Pascal requires a Pascal compiler.

Interpreter: An interpreter also converts secure code to machine code. Instead of creating an executable object code file, however, the interpreter translates and then executes each line of the program, one line at a time. Interpreters translate code on the fly, so they have a certain flexibility that compiles lack. The interpreted code runs slower than compiled code because the code must be interpreted each time it is run, and a copy of the interpreter must accompany the code everywhere it goes. Therefore, every system that needs the program must have a copy of the interpreter as well as the source code. Some popular interpreted languages include LISP, BASIC, and Visual Basic.

Q: 3 What is data privacy? How virus effects on data of any individuals' data? Explain with examples.

A: 3 Data privacy generally means the ability of a person to determine for themselves when, how, and to what extent personal information about them is shared with or communicated to others. This personal information

can be one's name, location, contact information, or online or real-world behavior. Just as someone may wish to exclude people from a private conversation, many online users want to control or prevent certain types of personal data collection. It is sometimes called “information privacy”.

Some computer viruses are programmed to harm your computer by damaging programs, deleting files, or reformatting the hard drive. Others simply replicate themselves or flood a network with traffic, making it impossible to perform any internet activity.

Worm: A computer worm is a type of malware whose primary function is to self-replicate and infect other computers while remaining active on infected systems. A computer worm duplicates itself to spread to uninfected computers. Spyware: Spyware is loosely defined as malicious software designed to enter your computer device, gather data about you, and forward it to a third-party without your consent.

Adware: The term adware is frequently used to describe a form of malware (malicious software) which presents unwanted advertisements to the user of a computer. While some sources rate adware only as an "irritant", others classify it as an "online threat" or even rate it as seriously as computer viruses and Trojans.

Ransom ware: Ransom ware is a form of malware designed to encrypt files on a device, rendering any files and the systems that rely on them unusable. Malicious actors then demand ransom in exchange for decryption.

Past Paper 2021

Q: 1 Give a guideline for evaluating the value of a website?

A: 1 Evaluating the value of a website involves considering various factors. Here are some guidelines to help you with the evaluation process:

1. Purpose and Goals: Start by understanding the purpose and goals of the website. Is it an e-commerce site, a blog, or an informational site? Evaluate how well the website aligns with its intended purpose and if it effectively achieves its goals.

2. Design and User Experience: Assess the website's design and user experience. Is the layout visually appealing, intuitive, and easy to navigate? Consider factors such as color scheme, typography, and overall usability. A well-designed website enhances user engagement and satisfaction. 3. Content Quality: Evaluate the quality and relevance of the website's content. Is the information accurate, up-to-date, and well-presented? High- quality content adds value to the website and helps establish credibility and authority.

4. Performance and Loading Speed: Website performance is crucial for user satisfaction. Evaluate the loading speed of the website's pages across different devices and internet connections. Slow loading times can lead to user frustration and abandonment.

5. Mobile Responsiveness: With the increasing use of mobile devices, it's essential to evaluate how well the website adapts to different screen sizes. A mobile-responsive design ensures a seamless user experience across devices.

6. Search Engine Optimization (SEO): Consider the website's visibility in search engine results. Evaluate if it is optimized for relevant keywords, has proper meta tags, and follows SEO best practices. A well-optimized website can attract more organic traffic and improve its value.

7. Analytics and Metrics: Analyze website analytics and metrics to assess its performance. Look at metrics like traffic, bounce rate, conversion rate, and engagement. These insights can help you understand how well the website is meeting its objectives. 8. Security and Privacy: Evaluate the website's security measures, including SSL certificates, data encryption, and protection against vulnerabilities. Users value websites that prioritize their privacy and safeguard their personal information.

Q: 2 How a program instructions transfer in and out of RAM?

A: 2 When a program is executed, its instructions are transferred in and out of RAM (Random Access Memory) to ensure efficient processing.

1. Loading into RAM: When a program is launched, its instructions and data are loaded from the storage device (like a hard drive or solid-state drive) into RAM. The operating system manages this process. The program's executable file is read from the storage device and loaded into a specific area of RAM called the process address space.

2. Execution: Once the program is loaded into RAM, the processor can access and execute its instructions. The processor fetches the instructions from RAM and performs the necessary calculations or operations based on those instructions. The data required for the instructions is also accessed from RAM.

3. Memory Management: As the program executes, the operating system manages the memory by allocating and deallocating portions of RAM as needed. This is done to ensure that there is enough space for all the running programs and to optimize the use of available memory. 4. Swapping: In cases where there is limited RAM available, the operating system may use a technique called swapping. It temporarily moves some parts of a program or data from RAM to the storage device to free up space in RAM for other programs. This swapping process allows multiple programs to run simultaneously, even if the total memory requirements exceed the available RAM.

5. Saving Changes: When a program is closed or its execution is completed, any changes made to data within the program are saved back to the storage device. This ensures that the changes are persistent and can be retrieved the next time the program is run.

The transfer of program instructions in and out of RAM is a dynamic process that happens behind the scenes, managed by the operating system. It allows for efficient execution of programs by providing fast access to instructions and data.

Q: 3 Define internet? Describe the complete evolution of internet?

A: 3 Internet: The internet is a global network of interconnected computers and devices that allows for the transmission and exchange of information. It's like a big web that connects people, websites, and resources from all around the world.

Evolution of Internet: The evolution of the internet is a fascinating journey. It all started in the 1960s with the creation of ARPANET, a network developed by the U.S. Department of Defense. ARPANET connected computers at different universities and research institutions, paving the way for communication and collaboration.

In the 1970s, TCP/IP (Transmission Control Protocol/Internet Protocol) was developed, which allowed different networks to communicate with each other. This laid the foundation for the modern internet we know today.

The 1980s saw the development of domain names and the creation of the World Wide Web (WWW) by Tim Berners-Lee. The WWW made it easier for people to access and share information through websites using hypertext links. In the 1990s, the internet became more accessible to the general public with the rise of internet

service providers (ISPs) and the development of user- friendly web browsers like Netscape Navigator and Internet Explorer. This led to a rapid increase in internet usage and the emergence of e-commerce, email, and online communities.

The early 2000s brought about the era of social media, with platforms like MySpace, Facebook, and Twitter revolutionizing how people connect and share information online. Mobile internet access also became widespread with the advent of smartphones.

Today, the internet continues to evolve with advancements in technology like high-speed broadband, cloud computing, and the Internet of Things (IoT). It has become an integral part of our daily lives, enabling us to communicate, access information, and engage with the world in ways we couldn't have imagined before.

Past Paper 2022

Q: 1 What are the major types of Operating System? Discuss features of operating system?

REPEADED QUESTION

Q: 2 What is key in Database? Discuss types of keys in Detail with appropriate example?

A: 2 In a database, a key is a field or a combination of fields that uniquely identifies a record in a table. It helps in organizing and retrieving data efficiently. There are several types of keys in a database:

1. Primary Key: A primary key is a unique identifier for each record in a table. It ensures that each record is uniquely identified and helps maintain data integrity. For example, in a "Students" table, the "Student ID" field can be the primary key.

2. Foreign Key: A foreign key is a field in a table that refers to the primary key of another table. It establishes a relationship between two tables. For example, in a "Orders" table, the "Customer ID" field can be a foreign key that refers to the primary key of the "Customers" table.

3. Candidate Key: A candidate key is a field or a combination of fields that can be chosen as a primary key. It should be unique and non-null. For example, in a "Employees" table, both the "Employee ID" and "Email" fields can be candidate keys. 4. Composite Key: A composite key is a combination of two or more fields that together uniquely identify a record. It is used when a single field cannot uniquely identify a record. For example, in a "Sales" table, a composite key can be formed by combining the "Order ID" and "Product ID" fields.

5. Unique Key: A unique key is a field or a combination of fields that ensures the values are unique but allows for null values. It helps in preventing duplicate entries in a table. For example, in a "Books" table, the "ISBN" field can be a unique key.

6. Super Key: A super key is a set of one or more fields that can uniquely identify a record. It may contain extra fields that are not necessary for uniqueness. For example, in a "Customers" table, a super key can be formed by combining the "Customer ID" and "Phone Number" fields.

Q: 3 What is Bus-interconnection? Discuss types of buses in detail?

A: 3 Bus Interconnection: Bus interconnection refers to the way different components of a computer system are connected to each other using a shared communication pathway called a bus. A bus allows for the transfer of data, control signals, and addresses between various hardware components.

There are several types of buses in a computer system:

1. System Bus: The system bus, also known as the front-side bus or the memory bus, connects the CPU (Central Processing Unit) to the main memory (RAM). It is responsible for transferring data and instructions between the CPU and memory.

2. Address Bus: The address bus is a unidirectional bus that carries memory addresses generated by the CPU. It determines the location in memory where data is read from or written to.

3. Data Bus: The data bus is a bidirectional bus that carries data between the CPU, memory, and other peripheral devices. It transfers the actual data being processed or stored. 4. Control Bus: The control bus carries control signals that coordinate the activities of various components in the computer system. It includes signals such as read, write, and interrupt signals.

5. Expansion Bus: The expansion bus allows for the connection of expansion cards or peripherals to the computer system. It provides additional functionality and features to the system. Examples of expansion buses include PCI (Peripheral Component Interconnect) and PCIe (Peripheral Component Interconnect Express).

Past Paper 2023

Q: 1 Explain the basics of creating presentation using Microsoft PowerPoint, including creating and manipulating slides and objects, and adding animations and effects?

A: 1 To start creating a presentation, open PowerPoint and click on the "New Presentation" option. You can choose a blank presentation or use a template to get started.

Once you're in the PowerPoint interface, you can create and manipulate slides. Each slide represents a separate page in your presentation. You can add new slides by clicking on the "New Slide" button or using the shortcut Ctrl+M. You can also choose different slide layouts to customize the appearance of your slides.

To add content to your slides, such as text, images, or shapes, simply click on the respective buttons in the PowerPoint toolbar and then click on the slide where you want to place the content. You can also format and customize the appearance of the content using various formatting options. If you want to add animations and effects to your presentation, you can do so by selecting the object or text you want to animate and then clicking on the "Animations" tab in the PowerPoint toolbar. From there, you can choose from a variety of animation effects and timings to enhance the visual appeal of your presentation.

Additionally, you can add transition effects between slides to create smooth transitions when moving from one slide to another. To do this, click on the "Transitions" tab in the toolbar and select the desired transition effect.

2. Explain the different types of application software used in computing, including productivity, graphics and multimedia software?

A: 2 Followings are different types of application software used in computing:

Productivity Software: Productivity software is designed to help users perform tasks more efficiently and effectively. This includes programs like word processors, spreadsheets, presentation software, and email

clients. Examples of productivity software include Microsoft Office (Word, Excel, PowerPoint), Google Docs, and Adobe Acrobat.

Graphics Software: Graphics software is used for creating and editing visual content. It includes programs for image editing, graphic design, and digital art. Some popular graphics softwares are Adobe Photoshop, CorelDRAW, and GIMP (a free and open-source alternative).

Multimedia Software: Multimedia software is used for creating, editing, and playing various types of media, such as audio, video, and interactive content. This includes video editing software like Adobe Premiere Pro, audio editing software like Audacity, and multimedia authoring tools like Adobe Flash (now Adobe Animate). These different types of software serve specific purposes and cater to different needs. They are designed to enhance productivity, create visually appealing content, and enable the creation and manipulation of multimedia elements.

Q: 3 Describe the different types of computer networks and their importance in modern computing?

A: 3 There are different types of computer networks that play important roles in modern computing. Here are a few examples:

1. Local Area Network (LAN): A LAN is a network that covers a small area, like an office building or a home. It connects devices within a limited geographical area and enables them to share resources such as printers, files, and internet access.

2. Wide Area Network (WAN): A WAN spans a larger geographical area, like cities, countries, or even continents. It connects multiple LANs and allows for the exchange of data between them. The internet is the most well-known example of a WAN.

3. Metropolitan Area Network (MAN): A MAN covers a larger area than a LAN but smaller than a WAN. It typically connects multiple LANs within a city or metropolitan area. MANs are often used by organizations or institutions that require high-speed communication between different locations within a city. 4. Wireless Networks: Wireless networks use radio waves or infrared signals to connect devices without the need for physical cables. Wi-Fi networks are a common example of wireless networks, allowing devices to connect and access the internet without wired connections.

5. Campus Area Network (CAN): A CAN is a network that spans a university campus or a large corporate campus. It connects multiple buildings or locations within the same organization, enabling seamless communication and resource sharing.

6. Personal Area Network (PAN): A PAN is a network that connects devices in close proximity to an individual, typically within a range of a few meters. Bluetooth is a popular technology used for PANs, allowing devices like smartphones, tablets, and headphones to connect and exchange data.

These different types of computer networks are essential in modern computing as they facilitate communication, data sharing, and resource access. They enable collaboration, remote access, and the seamless transfer of information. Without computer networks, the interconnectedness and global reach of modern computing would not be possible.