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**Exam Name:** CompTIA Strata IT Fundamentals

Version: Demo

#### **QUESTION 1**

Which of the following statements about a riser card is true?

- A. It is used to connect a computer in a network.
- B. It is used to connect extra microprocessors.
- C. It provides extra memory for expansion cards.
- D. It is used to extend slots for expansion cards.

**Correct Answer:** D **Explanation** 

## **Explanation/Reference:**

Explanation:

Riser card is a circuit board that is used to extend slots for expansion cards and provides the ability to connect additional expansion cards to the computer. These cards are used with LPX motherboards. With the introduction of ATX motherboards, riser cards are rarely used. In ATX motherboards, the expansion cards connect directly to the computer motherboard instead of using riser cards. What is LPX?

LPX is a motherboard form or that is used in some desktop computers. In LPX motherboards, expansion cards are inserted into a riser card that contains several slots. Unlike other common form ors such as AT and ATX, the expansion cards in LPX are not vertical, but parallel to the motherboard. The LPX form or is designed for smaller cases, and usually it is used for connecting two or three expansion cards.

#### **QUESTION 2**

Which of the following devices is used for accessing the data on Secure Digital (SD) card, MMC card, and CompactFlash (CF)?

- A. E-book reader
- B. Memory card reader
- C. Smart card reader
- D. Barcode reader

**Correct Answer**: B **Explanation** 

# **Explanation/Reference:**

Explanation:

A memory card reader is a device, typically having a USB interface, for accessing the data on a memory card such as a CompactFlash (CF),

Secure Digital (SD) or MultiMediaCard (MMC).

Answer option C is incorrect. Smart card readers are used to read smart cards. It is used as a communications medium between the smart card and a host. Answer option D is incorrect. A barcode reader (or barcode scanner) is an electronic device for reading printed barcodes.

Answer option A is incorrect. There is no such device as e-book reader.

## **QUESTION 3**

Which of the following can be used to accomplish authentication? Each correct answer represents a complete solution. Choose all that apply.

- A. Biometrics
- B. Encryption
- C. Password
- D. Token

Correct Answer: ACD

**Explanation** 

# **Explanation/Reference:**

Explanation:

The following can be used to accomplish authentication.

- 1. Password
- 2. Biometrics
- 3. Token

A password is a secret word or string of characters that is used for authentication, to prove identity, or gain access to a resource.

What is authentication?

Authentication is a process of verifying the identity of a person, network host, or system process. The authentication process compares the provided credentials with the credentials stored in the database of an authentication server.

What is biometrics?

Biometrics is a method of authentication that uses physical characteristics, such as fingerprints, scars, retinal patterns, and other forms of biophysical qualities to identify a user. Nowadays, the usage of biometric devices such as hand scanners and retinal scanners is becoming more common in the business environment. A token may be a physical device or software token that an authorized user of computer services is given to ease authentication.

Answer option B is incorrect. Encryption can be used to accomplish security and not authentication.

## **QUESTION 4**

Which of the following devices can cause great harm to one's life with lethal electric shocks? Each correct answer represents a complete solution. Choose two.

- A. SMPS
- B. Floppy drive
- C. Monitor
- D. Keyboard.

Correct Answer: AC

**Explanation** 

# **Explanation/Reference:**

Explanation:

A computer monitor and SMPS are at high voltage. Therefore, these devices can be fatal. They usually have large amount of electric charge stored in capacitors for days after they have been unplugged from power source.

What is SMPS?

Switch Mode Power Supply (SMPS) is a device that converts raw input power to controlled voltage and current for the operation of electronic equipment. SMPS uses switches for high efficiency. Answer options D and B are incorrect. Keyboards and floppy drives do not store electric charge.

Therefore, they cannot cause lethal electric shocks.

# **QUESTION 5**

Which of the following ports on a computer are used to connect a keyboard? Each correct answer represents a complete solution. Choose two.

- A. USB
- B. DB-25
- C. PS/2
- D. DB-9

Correct Answer: AC

**Explanation** 

# **Explanation/Reference:**

Explanation:

The PS/2 and USB ports on a computer are used to connect a keyboard.

#### What is USB?

Universal Serial Bus (USB) is a high speed bus standard developed by Compaq, IBM, DEC, Intel, Microsoft, NEC, and Northern Telecom. It provides the Plug and Play capability of Windows to external hardware devices. USB supports hot plugging, which means that a USB device can be installed or removed while the computer is running. A single USB port can be used to connect up to 127 peripheral devices, such as CD-ROM drives, tape drives, keyboards, scanners etc. USB 1.1 has a maximum data transfer rate of 12 Mbps, whereas USB 2.0 has a maximum data transfer rate of 480 Mbps. USB 2.0 is fully backward compatible with USB 1.1. Answer options D and B are incorrect. The DB-9 and DB-25 port types on the computer are used as serial ports. A DB-9 male type port has 9 pins, whereas a DB-25 male type port has 25 pins.

What is a serial port?

Serial port is the primary means for connecting modems and mouse to a computer. There are two types of serial port connectors, 9-pin and 25-pin. The word serial refers to the data is sent in series, one bit at a time, over a single wire. This design is significantly slower than sending 8 bits at a time via a parallel channel, but serial signals can travel much farther without degradation.

### **QUESTION 6**

Which of the following features are related to power management? Each correct answer represents a complete solution. Choose two.

- A. Hot plugging
- B. Hibernate mode
- C. Standby mode
- D. Safe mode

Correct Answer: BC

**Explanation** 

## **Explanation/Reference:**

Explanation:

The Hibernate mode and Standby mode are features related to power management. Hibernate mode is a power saving feature for computers. In hibernate mode, the current state of a computer is saved to the hard disk, and the computer shuts down. A user will have to power on the computer to restore the previous settings. When a computer resumes from hibernate mode, it reads the saved settings from the disk and restores the system state as it was before it entered hibernate mode. By default, hibernate mode is disabled. If a computer is not ACPI-enabled or APM-enabled, users will have to enter hibernate mode manually. Users cannot set the computer to automatically hibernate after a certain time. With ACPI-enabled and APM-enabled computers, users are able to set hibernate mode automatically. The standby mode is a power saving feature for computers. In this mode, a computer does not shut down completely. The computer goes to low power state and, as a result, it consumes less power. When the computer resumes from the standby mode, full power is restored to its devices. During the standby mode, if the power supply is disconnected or interrupted, data might be lost. The standby mode is available automatically on ACPI-enabled or APM-enabled computers. Users do not need to enable this mode manually. This mode is not available in non-ACPI and non-APM based computers. Answer option A is incorrect. Hot plugging is a feature in which a device can be installed or removed while the computer is running.

Answer option D is incorrect. Safe Mode is a Windows feature used to start a computer with basic drivers, such as mouse, keyboard, etc. It bypasses blocking issues, such as system corruption, or installation of incompatible drivers or system services, enabling the Administrator to resolve such issues.

### **QUESTION 7**

Which of the following are types of LCD monitors? Each correct answer represents a complete solution. Choose two.

- A. SVGA
- B. Active Matrix
- C. Passive Matrix
- D. X-Matrix

Correct Answer: BC

# **Explanation**

# Explanation/Reference:

Explanation:

Two types of LCDs are available.

Active matrix

Passive matrix

Active matrix LCDs uses individual transistors to control each pixel on the screen. This type of LCD consumes more power but provides sharper images than the passive matrix LCD. Passive matrix Passive matrix screens do not refresh quickly to rapid changes. The passive matrix screen displays weak colors. LCDs consume less power and are cheaper than Active matrix LCDs. Answer option A is incorrect. SVGA is a type of CRT monitor used with the Desktop computers, and not the LCD monitor. Answer option D is incorrect. There is no LCD display type such as X-Matrix.

## **QUESTION 8**

Which of the following transmits all ATSC HDTV standards and supports 8-channel digital audio?

A. DVI

B. S-Video

C. SVGA

D. HDMI

Correct Answer: D

Explanation

## **Explanation/Reference:**

Explanation:

HDMI stands for High-Definition Multimedia Interface. It is a standard, uncompressed, and all-digital audio/video interface. HDMI is capable of delivering the highest quality digital video and multichannel digital audio on a single cable. It provides an interface between any audio/video sources, such as a DVD player or a computer and a digital television (DTV) or video monitor. HDMI transmits all ATSC HDTV standards and supports 8-channel digital audio, with extra bandwidth to accommodate future enhancements. HDMI has two types of connectors. Type A and Type B. Type A and Type B connectors use 19 pins and 29 pins, respectively. The Type B connector is designed for very high- resolution displays that are expected in near future.

Answer option B is incorrect. S-Video, also known as Y/C video, stands for Super-Video. It is a technology for video transmission. Using this technology, the video is transmitted into two separate signals. One is used for color, and the other for brightness. Sometimes S-Video signals are considered as a type of component video signal. However, its quality is inferior to other complex component video schemes such as RGB. This technology produces sharper images than those produced by composite video, which carries the entire set of signals in a single line. For using SVideo, the device sending the signal must support S-Video output and the device receiving the signal needs to have an S-Video input jack. Answer option A is incorrect. DVI stands for Digital Visual Interface. It is a standard for high speed, high resolution digital display invented by

Digital Display Working Group (DDWG). DVI accommodates analog and digital interfaces with a single connector. New video cards have DVI as well as VGA ports built into them. Most of LCD monitors come with a 15-pin VGA connection cable, even if they are capable of handling digital signals coming from DVI connections. However, some monitors come with both types of cables. DVI has three main categories of connectors. They are. DVI-A, DVI-D, and DVI-I. DVI-A is an analog- only connector, DVI-D is a digital-only connector, and DVI-I is an analog/digital connector. DVI-D and DVI-I connectors are of two types. single link and dual link. DVI supports UXGA and HDTV with a single set of links.

Higher resolutions such as 1920 x 1080, 2048 x 1536, or more can be supported with dual links. Answer option C is incorrect. A VGA or SVGA connector is a 15-pin, three rows, female connector, on the back of a PC used for connecting monitors. Reference. "http://en.wikipedia.org/wiki/High-Definition Multimedia Interface"

## **QUESTION 9**

You are handling IT support for a sales company. One of the sales representatives complains that his laptop does not have a network card. You wish to add one via an expansion slot. What type of expansion card should you use?

- A. MCA
- B. PCMCIA
- C. PCI
- D. AGP

**Correct Answer:** B **Explanation** 

# **Explanation/Reference:**

Explanation:

PCMCIA is a widely used expansion card slot for laptops. What is PCMCIA card? Personal Computer Memory Card International Association (PCMCIA) card is also known as PC card.

The PC card uses a small expansion slot and is primarily used in laptops. However, PC cards are also available in some of the desktop computers. There are three types of PCMCIA cards.

- 1.Type I
- 2.Type II
- 3. Type III

Answer option C is incorrect. PCI slots are used in PC's, not laptops. Answer option D is incorrect. AGP is a legacy graphics slot for PC's.

What is AGP (Accelerated Graphics Port)?

AGP is a high speed 32-bit bus designed for high performance graphics and video support. It allows a video card to have direct access to a computer's RAM, which enables fast video performance. AGP provides a bandwidth of up to 2,133 MB/second.

Answer option A is incorrect. MCA is a legacy PC slot.

Reference. http://www.wisegeek.com/what-is-an-expansion-card.htm

#### **QUESTION 10**

Which of the following terms refers to an anti-virus software file that is updated from time to time to protect a computer from new viruses?

- A. Definition
- B. Modules
- C. Service pack
- D. Hotfix

**Correct Answer:** A **Explanation** 

# **Explanation/Reference:**

Explanation:

Definition is an anti-virus software file that should be updated at regular intervals to protect a computer from new viruses. This file is also known as virus definition file. The virus definition file contains information about the latest viruses, which helps identify new viruses and protect computers from them. Answer option D is incorrect. Hotfix is a collection of files used by Microsoft for software updates that are released between major service pack releases. A hotfix is about a problem, occurring under specific circumstances, which cannot wait to be fixed till the next service pack release. Hotfixes are generally related to security problems. Hence, it is essential to fix these problems as soon as possible. Answer option C is incorrect. A service pack is a collection of Fixes and Patches in a single product. A service pack can be used to handle a large number of viruses and bugs or to update an operating system with advanced and better capabilities. A service pack usually contains a number of file replacements. Answer option B is incorrect. This term does not refer to any anti-virus software file. Reference. "http://en.wikipedia.org/wiki/Computer\_virus"

#### **QUESTION 11**

You are implementing wireless access at a defense contractor. Specifications say, you must implement the AES Encryption algorithm. Which encryption standard should you choose?

A. WEP

- B. WPA
- C. TKIP
- D. WPA 2

**Correct Answer**: D **Explanation** 

## **Explanation/Reference:**

Explanation:

WPA 2 (Wi Fi Protected Access 2) uses AES encryption, which is endorsed by the National Security Administration.

What is AES?

The Advanced Encryption Standard (AES) is an encryption standard adopted by the U.S. government. The standard comprises three block ciphers, AES-128, AES-192, and AES-256. Each AES cipher has a 128-bit block size, with key sizes of

128, 192, and 256 bits, respectively. The AES ciphers have been analyzed extensively and are now used worldwide, as was the case with its predecessor, the Data Encryption Standard (DES). AES was announced by National Institute of Standards and Technology (NIST) as U.S. FIPS PUB 197 (FIPS 197) on

November 26, 2001 after a 5-year standardization process in which fifteen competing designs were presented and evaluated before Rijndael was selected as the most suitable. It became effective as a standard on May 26, 2002. As of

2009, AES is one of the most popular algorithms used in symmetric key cryptography. It is available in many different encryption packages. AES is the first publicly accessible and open cipher approved by the NSA for top secret information.

Answer optiond A and B are incorrect. WEP and WPA both use the RC-4 Stream cipher. What is RC4?

RC4 is a stream cipher designed by Ron Rivest. It is used in many applications, including Transport Layer Security (TLS), Wired Equivalent Privacy (WEP), Wi-Fi Protected Access (WPA), etc. RC4 is fast and simple. However, it has weaknesses that argue against its use in new systems. It is especially vulnerable when the beginning of the output key stream is not discarded, nonrandom or related keys are used, or a single key stream is used twice. Some ways of using RC4 can lead to very insecure cryptosystems such as WEP.

Answer option C is incorrect. Temporal Key Integrity Protocol is a substitute for WPA, meant to replace WEP without requiring that hardware be replaced. Reference.

http://en.wikipedia.org/wiki/IEEE 802.11i

# **QUESTION 12**

What is the maximum cable length to connect a device to an IEEE 1394a port?

- A. 12 meters
- B. 10 meters
- C. 4.5 meters
- D. 5 meters

Correct Answer: C Explanation

# Explanation/Reference:

Explanation:

The maximum cable length to connect a device to an IEEE 1394a port is 4.5 meters. What is IEEE 1394?

Institute of Electrical and Electronics Engineers (IEEE) 1394 is a standard for high-speed serial bus that provides enhanced PC connectivity for a wide range of devices. These devices include consumer audiovisual components, traditional PC storage devices, and handheld devices. IEEE 1394 is also known as Fire wire.

Answer option D is incorrect. The maximum cable length to connect a device to USB 1.1 and USB 2.0 ports is 5 meters.

What is USB?

Universal Serial Bus (USB) is a high speed bus standard developed by Compaq, IBM, DEC, Intel,

Microsoft, NEC, and Northern Telecom. It provides the Plug and Play capability of Windows to external hardware devices. USB supports hot plugging, which means that a USB device can be installed or removed while the computer is running. A single USB port can be used to connect up to 127 peripheral devices, such as CD-ROM drives, tape drives, keyboards, scanners etc. USB 1.1 has a maximum data transfer rate of 12 Mbps, whereas USB 2.0 has a maximum data transfer rate of 480 Mbps. USB 2.0 is fully backward compatible with USB 1.1.

#### **QUESTION 13**

Which of the following is an international standard for energy efficient consumer products?

- A. Energy Star rating
- B. Standby mode
- C. Trusted Computer System Evaluation Criteria (TCSEC)
- D. Advanced Configuration and Power Interface (ACPI)

Correct Answer: A Explanation

# **Explanation/Reference:**

Explanation:

Energy Star rating is an international standard for energy efficient consumer products. The Energy Star rating is an international standard for energy efficient consumer products. Devices carrying the Energy Star logo are products, such as computer devices, peripherals, kitchen appliances, etc. These products generally use 20% to 30% lesser energy than required by the federal standards. The Energy Star program was created by the 'United States Environmental Protection Agency' (US EPA) as an attempt to reduce energy consumption and greenhouse gas emission by power plants. The program has helped in spreading the use of LED traffic lights, efficient fluorescent lighting, and power management systems for office equipments.

Answer option C is incorrect. Trusted Computer System Evaluation Criteria (TCSEC), frequently referred to as the Orange Book, is the centerpiece of the DoD Rainbow Series publications. It is a United States Government Department of Defense (DoD) standard that sets basic requirements for assessing the effectiveness of computer security controls built into a computer system. TCSEC was used to evaluate, classify and select computer systems being considered for the processing, storage and retrieval of sensitive or classified information. It was replaced with the development of the Common Criteria international standard originally published in 2005. Answer option B is incorrect. The standby mode is a power saving feature for computers. In this mode, a computer does not shut down completely. The computer goes to low power state and, as a result, it consumes less power. When the computer resumes from the standby mode, full power is restored to its devices. During the standby mode, if the power supply is disconnected or interrupted, data might be lost. The standby mode is available automatically on ACPI-enabled or APM-enabled computers. Users do not need to enable this mode manually.

This mode is not available in non-ACPI and non-APM based computers. Answer option D is incorrect. The Advanced Configuration and Power Interface (ACPI) is a powermanagement specification developed by Intel, Microsoft, and Toshiba. It enables an operating system to control the amount of power supplied to each device attached to a computer by turning off peripheral devices when they are not in use. It defines power management on a wide range of mobile, desktop, and server computers and peripherals. It also enables manuurers to produce computers that automatically power up as soon as a user touches the keyboard. Reference.

"http://en.wikipedia.org/wiki/Energy\_Star"

# **QUESTION 14**

Which of the following storage device uses SRAM or DRAM?

- A. USB flash drive
- B. Solid-state drive (SSD)
- C. Blu-ray Disc
- D. CD drive

Correct Answer: B Explanation

## **Explanation/Reference:**

Explanation:

A solid-state drive (SSD) is a data storage device that uses solid-state memory to store persistent data. An SSD emulates a hard disk drive interface, thus easily replacing it in most applications. It is also known as solid-state hard disk drive. SSDs have no moving parts; hence, they are less fragile and silent than hard disks. As there are no mechanical delays, SSDs usually enjoy low access time and latency. An SSD using SRAM or DRAM (instead of flash memory) is often called a RAM-drive, which should not be confused with a RAM disk.

Answer option C is incorrect. Blu-ray Disc, also known as Blu-ray or BD, is an optical disc storage medium. It is designed to supersede the standard DVD format for storing high-definition video, PlayStation 3 games, and other data, with up to 25 GB per single layered, and 50 GB per dual layered disc. Blu-ray Disc was developed by the Blu-ray Disc Association, a group representing makers of consumer electronics, computer hardware, and motion pictures. The disc has the same physical dimensions as standard DVDs and CDs. It is called Blu-ray Disc because of the blue-violet laser which is used to read the disc. Blu-ray uses a shorter wavelength, a 405 nm blue-violet laser, and allows for almost six times more data storage than on a DVD.

Answer option D is incorrect. CD drive is used for read/write operations on CDs. The CD drives that are capable of performing write operations on CDs are also known as CD burners. However, most of the CD drives on computers have read only capability. CD drives with read-only capability are also known as CD-ROM (Compact Disc Read-Only Memory) drives. A CD drive is installed inside the computer case and can be connected to IDE, SCSI, SATA, or firewire interface. Answer option A is incorrect. A USB flash drive consists of flash memory data storage device integrated with a USB (Universal Serial Bus) 1.1 or 2.0 interface. Reference. "http://en.wikipedia.org/wiki/Solid-state\_drive"

#### **QUESTION 15**

You are working with a team that will be bringing in new computers to a sales department at a company. The sales team would like to keep not only their old files, but system settings as well on the new PC's. What should you do?

- A. Do a system backup (complete) on each old machine, then restore it onto the new machines.
- B. Use the Disk Management tool to move everything to the new computer.
- C. Use the User State Migration tool to move the system settings and files to the new machines.
- D. Copy the files and the Windows Registry to a removable media then copy it onto the new machines.

**Correct Answer:** C **Explanation** 

# **Explanation/Reference:**

Explanation:

The User State Migration Tool is made specifically for this purpose. Large scale migrations require not only files but system settings to be moved to new machines and Microsoft created this tool for this purpose. What is User State Migration Tool (USMT)?

User State Migration Tool (USMT) is used to migrate user files and settings during large deployments of Microsoft Windows XP and Microsoft Windows Vista operating systems. It captures desktop, and application settings, as well as user accounts and users' files, and then migrates them to a new Windows installation. It helps administrators to improve and simplify migration process. USMT can be used for both side-by-side and wipe-and-load migrations. USMT component SCANSTATE.EXE is used to collect the files and settings from the source computer and the LOADSTATE.EXE component is used to restore the user state onto the destination computer. Answer option D is incorrect. Moving the Windows registry will not work and could in cause major problems on the new system. This is especially true if the new system has a more modern version of Windows.

Answer option B is incorrect. The disk management tool is used for managing disk partitions. Answer option A is incorrect. A complete backup will likely cause problems on the new installations. This is especially true if the new system has a more modern version of Windows. Reference. http://technet.microsoft.com/en-us/library/bb457090.aspx

## **QUESTION 16**

Which of the following programs can collect various types of personal information, such as Internet surfing habits, and Web sites that the user has visited?

- A. Malware
- B. Spyware
- C. Honeypot
- D. Worm

Correct Answer: B Explanation

# Explanation/Reference:

Explanation:

Spyware is a program that takes partial control over a user's computer without user's permission. Spyware programs can collect various types of personal information, such as Internet surfing habits, and Web sites that the user has visited. Spyware programs can also interfere with the control of a user's computer, such as installing additional software, redirecting Web browser activities, accessing Web sites blindly, etc. Answer option C is incorrect. A honeypot is a term in computer terminology used for a trap that is set to detect, deflect, or in some manner counteract attempts at unauthorized use of information systems. Generally it consists of a computer, data, or a network site that appears to be part of a network, but is actually isolated, and monitored, and which seems to contain information or a resource of value to attackers.

Answer option A is incorrect. The term malware refers to malicious software, which is a broad class of malicious viruses, including spyware.

Malware is designed to infiltrate or damage a computer without the consent of the owner. Answer option D is incorrect. A worm is a software program that uses computer networks and security holes to replicate itself from one computer to another. It usually performs malicious actions, such as using the resources of computers as well as shutting down computers.

Reference. "http://en.wikipedia.org/wiki/Spyware"

#### **QUESTION 17**

Which of the following expansion slots can be used to plug a SCSI adapter? Each correct answer represents a complete solution. Choose all that apply.

- A. VESA
- B. Slot 2
- C. PCI
- D. Slot 1
- E. EISA

Correct Answer: ACE

**Explanation** 

# **Explanation/Reference:**

Explanation:

Small Computer System Interface (SCSI) adapters can fit on PCI, EISA, and VESA slots. Unlike IDE, SCSI interface is generally not built-in on the motherboard. However, some motherboards do come with integrated SCSI adapters. In most cases, you have to purchase a SCSI adapter and install it into a bus slot. Once the SCSI adapter is installed, you can connect the SCSI devices to the host adapter. What is SCSI?

Small Computer System Interface (SCSI) is the second most popular drive interface in use today after the Integrated Drive Electronics (IDE) interface. SCSI is faster than IDE and supports more devices. SCSI devices, such as hard disk drive and CD-ROM drive, are better suited in a network environment in which many users access shared drives simultaneously. SCSI has three standards. SCSI-1, SCSI- 2, and SCSI-3.

What is a VESA bus?

VESA is an expansion bus standard developed by Video Electronics Standards Association to provide high-performance video and graphics capabilities.

What is a PCI bus?

Peripheral Component Interconnect (PCI) is a high-performance, 32-bit or 64-bit bus designed to be used with devices that have high bandwidth requirements, such as the display subsystem. What is an EISA bus?

Extended Industry Standard Architecture (EISA) is a 32-bit PC expansion bus designed as a superset of a

#### 16-bit ISA bus.

The EISA bus is designed to increase the speed and expand the data width of the legacy expansion bus while still supporting older ISA cards. This is accomplished by providing the slot with two layers of connectors. The top layer is identical to a 16-bit ISA slot. The bottom layer is used by an EISA device but ignored by an ISA device. Therefore, both ISA and EISA devices can work in an EISA slot. Answer options B and D are incorrect. Slot1 and Slot2 are used for Pentium III processors and Pentium Xeon processors, respectively.

## **QUESTION 18**

Which of the following AT Attachment (ATA) standards supports transfer mode UltraDMA/133?

- A. ATA-6
- B. ATA-7
- C. ATA-4
- D. ATA-5

Correct Answer: B Explanation

# **Explanation/Reference:**

Explanation:

The AT Attachment-7 (ATA-7) standard supports transfer mode UltraDMA/133. With the market introduction of Serial ATA, the ATA is sometimes referred to as Parallel ATA (PATA). What is Parallel ATA (PATA)?

Parallel ATA (PATA) is a standard interface for connecting storage devices such as the hard disk and CD-ROM drive inside a computer. It is the most common and least expensive interface for connecting storage devices. A PATA ribbon cable uses either a 40-conductor or an 80-conductor wire and is limited to 46 cm length. The new 80-wire ribbon cable appeared with the introduction of the Ultra DMA/66 mode. All forty additional wires in the new cable are ground wires, interleaved with the previously defined wires. The extra forty conductors are all ground lines, placed there to provide additional shielding and protection against crosstalk between conductors. A maximum of two devices can be connected to a PATA port. Parallel ATA (PATA) 133 has a data transfer speed of 1064 Mbps.

Answer option A is incorrect. The AT Attachment-6 (ATA-6) standard supports transfer mode UltraDMA/100.

Answer option D is incorrect. The AT Attachment-5 (ATA-5) standard supports transfer mode UltraDMA/66.

Answer option C is incorrect. The AT Attachment-4 (ATA-4) standard supports transfer mode UltraDMA/33.

Reference. "http://en.wikipedia.org/wiki/Advanced\_Technology\_Attachment#Parallel\_ATA"

#### **QUESTION 19**

Which of the following color code is used for a PS/2 keyboard connector on new motherboards?

- A. Purple
- B. Pink
- C. Green
- D. Blue

Correct Answer: A Explanation

# Explanation/Reference:

Explanation:

The purple color is used for a PS/2 keyboard connector on new motherboards. Answer option D is incorrect. The blue color is used for a 15-pin VGA monitor connector on motherboard.

Answer option C is incorrect. The green color is used for a PS/2 mouse connector on new motherboards. Answer option B is incorrect. The pink color is used for a 25-pin female parallel port connector on new motherboards.

#### **QUESTION 20**

Which of the following cryptographic algorithm uses public key and private key to encrypt or decrypt data?

- A. Hashing
- B. Symmetric
- C. Asymmetric
- D. Numeric

**Correct Answer**: C **Explanation** 

# **Explanation/Reference:**

Explanation:

Asymmetric algorithm uses two keys, public key and private key, to encrypt and decrypt data. What is asymmetric encryption?

Asymmetric encryption is a type of encryption that uses two keys - a public key and a private key pair for data encryption. The public key is available to everyone, while the private or secret key is available only to the recipient of the message. For example, when a user sends a message or data to another user, the sender uses a public key to encrypt the data. The receiver uses his private key to decrypt the data. Answer option B is incorrect. Symmetric algorithm uses a single key to encrypt and decrypt data. Answer option A is incorrect. Hashing encryption algorithm uses a process of converting a message, or data, into a numeric value to encrypt data. Secure Hash Algorithm (SHA) and Message Digest Algorithm (MDA) are two standards that use the hashing process for encryption. Answer option D is incorrect. There is no such cryptographic algorithm as Numeric. Reference. TechNet, Contents. "Description of Symmetric and Asymmetric Encryption"

## **QUESTION 21**

Which of the following are the types of parental control? Each correct answer represents a complete solution. Choose all that apply.

- A. Content filter control
- B. Usage control
- C. Monitoring control
- D. Usage management tool

Correct Answer: ABCD

**Explanation** 

# Explanation/Reference:

Explanation:

Following are the types of parental control.

Content filter control

Usage control

Usage management tool

Monitoring control

Content filter control limits the access to age-appropriate content. Usage control limits the usage of the devices, such as placing time-limits on usage or forbidding certain types of usage. Usage management tool allows the parents to enforce learning time into child's computing time. Monitoring control can track down locations and activities when using the device. Reference. "http://en.wikipedia.org/wiki/Parental\_controls"

# **QUESTION 22**

Which of the following Interfaces has the ability to support digital audio as well as video through a single cable?

- A. VGA
- B. HDMI
- C. SVGA
- D. DVI

Correct Answer: B Explanation

#### **Explanation/Reference:**

Explanation:

HDMI interface has the ability to support digital audio as well as video through a single cable. HDMI stands for High-Definition Multimedia Interface. It is a standard, uncompressed, and all-digital audio/video interface. HDMI is capable of delivering the highest quality digital video and multichannel digital audio on a single cable. It provides an interface between any audio/video sources, such as a DVD player or a computer and a digital television (DTV) or video monitor. HDMI transmits all ATSC HDTV standards and supports 8-channel digital audio, with extra bandwidth to accommodate future enhancements. HDMI has two types of connectors. Type A and Type B. Type A and Type B connectors use 19 pins and 29 pins, respectively. The Type B connector is designed for very high- resolution displays that are expected in near future.

Answer options C, D, and A are incorrect. SVGA, VGA, and DVI interfaces do not have capability to support digital audio as well as video through a single cable.

What is a VGA or SVGA connector?

A VGA or SVGA connector is a 15-pin, three rows, female connector, on the back of a PC used for connecting monitors.

What is DVI?

DVI stands for Digital Visual Interface. It is a standard for high speed, high resolution digital display invented by Digital

Display Working Group (DDWG). DVI accommodates analog and digital interfaces with a single connector. New video cards have DVI as well as VGA ports built into them. Most of LCD monitors come with a 15-pin VGA connection cable, even if they are capable of handling digital signals coming from DVI connections. However, some monitors come with both types of cables. DVI has three main categories of connectors. They are. DVI-A, DVI-D, and DVI-I. DVI-A is an analog-only connector, DVI-D is a digital-only connector, and DVI-I is an analog/digital connector. DVI-D and DVI-I connectors are of two types. single link and dual link. DVI supports UXGA and HDTV with a single set of links. Higher resolutions such as 1920 x 1080, 2048 x 1536, or more can be supported with dual links.

Reference. "http://en.wikipedia.org/wiki/HDMI"

## **QUESTION 23**

Which of the following are the basic options in Windows XP for putting your laptop to sleep when you are not actively using it, but do not want to completely shut it down? Each correct answer represents a complete solution. Choose two.

- A. Low-power state
- B. Sleeper state
- C. Standby
- D. Hibernate

Correct Answer: CD

**Explanation** 

# Explanation/Reference:

Explanation:

The following are two basic options in Windows XP for putting your laptop to sleep when you are not actively using it, but do not want to completely shut it down. Standby, Hibernate What is standby mode? The standby mode is a power saving feature for computers. In this mode, a computer does not shut down completely. The computer goes to low power state and, as a result, it consumes less power. When the computer resumes from the standby mode, full power is restored to its devices. During the standby mode, if the power supply is disconnected or interrupted, data might be lost. The standby mode is available automatically on ACPI-enabled or APM-enabled computers. Users do not need to enable this mode manually. This mode is not available in non-ACPI and non-APM based computers. What is hibernate mode?

Hibernate mode is a power saving feature for computers. In hibernate mode, the current state of a computer is saved to the hard disk, and the computer shuts down. A user will have to power on the computer to restore the previous settings.

When a computer resumes from hibernate mode, it reads the saved settings from the disk and restores the system state as it was before it entered hibernate mode. By default, hibernate mode is disabled. If a computer is not ACPI-enabled or APM-enabled, users will have to enter hibernate mode manually. Users cannot set the computer to automatically hibernate after a certain time. With ACPI-enabled and APM-enabled computers, users are able to set hibernate mode automatically. Answer options A and B are incorrect. There are no such options in Windows XP as Low-power state and Sleeper state.

"http.//www.microsoft.com/windowsxp/using/setup/learnmore/russel\_02march25.mspx"

## **QUESTION 24**

In which of the following sizes are the Express Card modules available? Each correct answer represents a complete solution. Choose two.

- A. 54 mm Wide
- B. 64 mm Wide
- C. 20 mm Wide
- D. 34 mm Wide

Correct Answer: AD

**Explanation** 

# **Explanation/Reference:**

Explanation:

Express Card is a thinner, faster, and lighter modular expansion for desktops and laptops. Users can add memory, wired or wireless communication cards, and security devices by inserting these modules into their computers.

Express Card slots are designed to accommodate modules that use either Universal Serial Bus (USB) 2.0 or the PCI Express standard. Express Card modules are available in two sizes, i.e., 34 mm wide (Express Card/34) and 54 mm wide (Express Card/54). Both modules are 75 mm long and 5 mm high. An Express Card/34 module can be inserted in either a 54 mm slot or a 34 mm slot, but an Express Card/54 requires a Universal (54 mm) slot. However, an extender can be used with Express Card/34 slot to connect the Express Card/54 module from outside of the computer. Both the modules are identical in performance. They take full advantage of the features of the PCI Express or USB 2.0 interfaces. The only difference between them is that the Express Card/54 formor, due to its larger surface area, allows for greater thermal dissipation than does an Express Card/34. As the performance does not vary with module size, module developers usually prefer to fit their applications into the smaller Express Card/34 form or. But some applications, such as SmartCard readers, and CompactFlash readers, require the extra width of an Express Card/54 module.

Reference. "http://en.wikipedia.org/wiki/Express Card"

#### **QUESTION 25**

Which of the following statements about the DVI-I connector are true? Each correct answer represents a complete solution. Choose two.

- A. It contains 4 more pins than the DVI-D connector.
- B. It is used only for digital signal connection.
- C. It is used for both digital and analog signal connections.
- D. It contains 15 more pins than the DVI-D connector.

Correct Answer: AC

**Explanation** 

## **Explanation/Reference:**

Explanation:

The DVI-I is a type of DVI connector. This connector is used for both digital and analog signal connections. DVI-I connectors come in dual and single links. To carry analog signal, it contains 4 more pins than the DVI-D connector.

What is DVI?

DVI stands for Digital Visual Interface. It is a standard for high speed, high resolution digital display

invented by Digital Display Working Group (DDWG). DVI accommodates analog and digital interfaces with a single connector. New video cards have DVI as well as VGA ports built into them. Most of LCD monitors come with a 15-pin VGA connection cable, even if they are capable of handling digital signals coming from DVI connections. However, some monitors come with both types of cables. DVI has three main categories of connectors. They are. DVI-A, DVI-D, and DVI-I. DVI-A is an analog-only connector, DVI-D is a digital-only connector, and DVI-I is an analog/digital connector. DVI-D and DVI-I connectors are of two types. single link and dual link. DVI supports UXGA and HDTV with a single set of links. Higher resolutions such as 1920 x 1080, 2048 x 1536, or more can be supported with dual links. Answer option B is incorrect. The DVI-D connector is used only for digital signal connection. Reference. "http://en.wikipedia.org/wiki/DVI"

# **QUESTION 26**

Your client currently has Windows 98 and wishes to upgrade to Windows XP. What is the most efficient way to accomplish this goal?

- A. Buy and install the Windows XP Upgrade.
- B. Install a full copy of Windows XP.
- C. First upgrade to Windows 2000, then to Windows XP.
- D. You cannot upgrade from Windows 98 to XP.

Correct Answer: A Explanation

# **Explanation/Reference:**

**Explanation:** 

Windows 98 can be upgraded directly to Windows XP.

Answer option C is incorrect. This is not necessary (but would work). Answer option B is incorrect. Installing a fresh new copy does not keep the configurations, programs, etc. from the old copy. Upgrading is the best approach here. Answer option D is incorrect. You can upgrade from Windows 98 to XP. Reference. http://support.microsoft.com/kb/292607

## **QUESTION 27**

Which of the following is the most common laptop battery found today?

- A. NiMH
- B. Lithium-Ion
- C. Energizer
- D. NiCad

**Correct Answer:** B **Explanation** 

# Explanation/Reference:

Explanation:

The Lithium Ion battery is the most common laptop battery found today. Answer option D is incorrect. Nickel Cadmium batteries are legacy batteries and not often found today. Answer option C is incorrect. Brand names are not relevant to this question and Energizer does not make laptop batteries. Answer option A is incorrect. The Nickel Metal Hydroxide battery was an early replacement for NiCad, but is no longer used.

Reference. http://www.dummies.com/how-to/content/types-of-laptop-batteries.navId-323015.html

# **QUESTION 28**

Which of the following refers to a location away from the computer center where document copies and backup media are kept?

- A. Off-site storage
- B. Network attached storage
- C. Storage Area network
- D. On-site storage

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

Off-site storage refers to a location away from the computer center where documents copies and backup media are kept. This storage method is more secure but less convenient and more costly. Answer option D is incorrect. Onsite storage refers to the same location where the work place is. It is considered more convenient but less secure in case of disaster. Answer option C is incorrect. A storage area network (SAN) is an architecture to attach remote computer storage devices (such as disk arrays, tape libraries, and optical jukeboxes) to servers in such a way that the devices appear as locally attached to the operating system. Answer option B is incorrect. Network attached storage (NAS), in contrast to SAN, uses file-based protocols such as NFS or SMB/CIFS where it is clear that the storage is remote, and computers request a portion of an abstract file rather than a disk block.

## **QUESTION 29**

Which of the following statements is true about modem?

- A. It amplifies the digital signals.
- B. It converts digital signals into analog signals and vice versa.
- C. It reduces the noise in analog signal.
- D. It converts AC current to DC current and vice versa.

**Correct Answer:** B **Explanation** 

# **Explanation/Reference:**

Explanation:

Modem converts digital signals into analog signals and vice versa. Modem is a device used by computers to communicate over long distances through Public Service Telephone Lines (PSTN). Modem stands for Modulator and Demodulator. When a computer sends data, it uses digital signals. Modem converts these digital signals into analog signals and transmits the data over PSTN. At the receiving end, modem converts the analog signals back to digital signals and delivers to the receiving computer.

# **QUESTION 30**

Which of the following devices contains no moving parts and stores data in a digital format?

- A. Solid-state drive
- B. Cartridge tape drive
- C. Floppy disk drive
- D. Hard disk drive

Correct Answer: A Explanation

## **Explanation/Reference:**

Explanation:

Solid-state drive contains no moving parts and stores data in a digital format. A solid-state drive (SSD) is a data storage device that uses solid-state memory to store persistent data. An SSD emulates a hard disk drive interface, thus easily replacing it in most applications. It is also known as solid-state hard disk drive. SSDs have no moving parts; hence, they are less fragile and silent than hard disks. As there are no mechanical delays, SSDs usually enjoy low access time and latency. An SSD using SRAM or DRAM (instead of flash memory) is often called a RAM-drive, which should not be confused with a RAM disk. Answer options D, C, and B are incorrect. Hard disk drive, floppy disk drive, and cartridge tape drive contain moving parts.

Reference. "http://en.wikipedia.org/wiki/Computer\_hardware"

## **QUESTION 31**

Which of the following statements about the G3 state of a computer are true? Each correct answer represents a complete solution. Choose two.

- A. It is a normal working state of a computer.
- B. A complete power loss occurs in this state such as power cord unplugged from a computer.
- C. A computer can be disassembled in this state.
- D. This state is also known as soft off.

**Correct Answer:** BC **Explanation** 

# **Explanation/Reference:**

Explanation:

In the G3 state of a computer, a complete power loss occurs such as power cord unplugged from a computer. A computer can be disassembled in this state.G0, G1, G2, G3 are various power states of a computer. The G1 state is divided into four submodes or sleep modes known as S1, S2, S3, and S4. Higher state number indicates more power saving.

Answer option A is incorrect. G0 is a normal working state of a computer. It is assumed that all the devices are running using full power in this state.

Answer option D is incorrect. The G2 state is also known as soft off. A user can execute soft off by clicking the Shutdown button in Windows operating system.

#### **QUESTION 32**

Which of the following display standards provides four times more pixels than an 800 x 600 display?

- A. SXGA
- B. SXGA+
- C. SVGA
- D. UXGA

Correct Answer: D Explanation

# Explanation/Reference:

Explanation:

UXGA stands for Ultra eXtended Graphics Array. It is a display standard that refers to video adapters. This display standard is capable of displaying the resolution of 1600 x 1200 pixels. A UXGA display provides four times more pixels than an 800 x 600 display. Answer option A is incorrect. SXGA stands for Super eXtended Graphics Array. It is a display standard that refers to video adapters. This standard is an enhancement of the standard XGA resolution developed by IBM. It is capable of displaying the resolution of 1280 x 1024 pixels. Answer option B is incorrect. SXGA+ stands for Super eXtended Graphics Array Plus and is a computer display standard. An SXGA+ display is commonly used on 14-inch or 15-inch laptop LCD screens with a resolution of 1400 1050 pixels. SXGA+ is also the maximum resolution native to many high-end video projectors. An SXGA+ display is used on a few 12 inch laptop screens such as the ThinkPad X60 & X61.

Answer option C is incorrect. SVGA standard normally refers to a resolution of 800 x 600 pixels. Reference. "http://en.wikipedia.org/wiki/UXGA"

#### **QUESTION 33**

Which of the following statements is true about a brownout?

- A. It is the situation of voltage drop in power supply.
- B. It supplies power to the devices in case of a power failure.
- C. It is a brief decrease in voltage at the power source.
- D. It is a device used to filter out the effects of voltage spikes and surges.

Correct Answer: A

# **Explanation**

# Explanation/Reference:

Explanation:

A brownout is the situation of voltage drop in power supply. The overloading of a primary power source can cause brownouts.

Answer option D is incorrect. The surge protector is a device used to smooth out power variations by filtering out the effects of voltage spikes and surges that are present in commercial power sources. Answer option C is incorrect. Sag is a brief decrease in voltage at the power source. Answer option B is incorrect. Uninterrupted Power Supply (UPS) continues to supply power to the devices in case of power failure. What is UPS?

Uninterruptible power supply (UPS) is a device that allows a computer to keep running for a short period of time in case of power failure or low voltage, using battery backup. It also provides protection against power surges. When power surge occurs, only the UPS charging circuit is affected, while the computer gets normal power.

## **QUESTION 34**

Which of the following protocols handles the reliable delivery of data?

- A. TCP
- B. ARP
- C. IPX
- D. UDP

Correct Answer: A Explanation

# Explanation/Reference:

Explanation:

TCP handles the reliable delivery of data.

Transmission Control Protocol (TCP) is a reliable, connection-oriented protocol operating at the transport layer of the OSI model. It provides a reliable packet delivery service encapsulated within the Internet Protocol (IP). TCP guarantees the delivery of packets, ensures proper sequencing of data, and provides a checksum feature that validates both the packet header and its data for accuracy. If the network corrupts or loses a TCP packet during transmission, TCP is responsible for retransmitting the faulty packet. It can transmit large amounts of data. Application-layer protocols, such as HTTP and FTP, utilize the services of TCP to transfer files between clients and servers. Answer option D is incorrect. User Datagram Protocol (UDP) is often used for one-to-many communications, using broadcast or multicast IP datagrams. Microsoft networking uses UDP for logon, browsing, and name resolution. UDP is a connectionless and unreliable communication protocol. It does not guarantee delivery, or verify sequencing for any datagram. UDP provides faster transportation of data between TCP/IP hosts than TCP.

Answer option C is incorrect. Internetwork Packet Exchange (IPX) is the OSI-model Network layer protocol in the IPX/SPX protocol stack. It is a connectionless protocol. Answer option B is incorrect. Address Resolution Protocol (ARP) is a network maintenance protocol of the TCP/IP protocol suite. It is responsible for the resolution of IP addresses to media access control (MAC) addresses of a network interface card (NIC). The ARP cache is used to maintain a correlation between a MAC address and its corresponding IP address. ARP provides the protocol rules for making this correlation and providing address conversion in both directions. ARP is limited to physical network systems that support broadcast packets. Reference. "http://en.wikipedia.org/wiki/Transmission Control Protocol"

# **QUESTION 35**

Your office uses Windows Vista. This morning, a patch was applied automatically. Suddenly, the users who have scanners attached to their computers complain that they cannot access the scanners. When you check their Device Manager, you notice there is no exclamation point next to the scanner. What should you do now?

- A. Reinstall Vista.
- B. Find a Vista compatible scanner.
- C. Manually uninstall and reinstall the device driver.

D. Roll back the patch.

**Correct Answer:** C **Explanation** 

## **Explanation/Reference:**

**Explanation:** 

Sometimes a patch may cause problems for an existing device driver. Usually, you simply uninstall and then reinstall the driver. This way the driver is installed after the patch. Answer option D is incorrect. Patches often have key security updates. Simply leaving the machine unpatched is never a good idea. Answer option A is incorrect. This drastic step will return you to the pre-patch state, but then you will still need to apply that patch, and still have to deal with this problem. Answer option B is incorrect. The scanner worked with Vista before the patch. This indicates that it is Vista compatible. Reference. http://support.microsoft.com/kb/948187/en-us

## **QUESTION 36**

You have a wireless printer that is connected to your Windows XP laptop via infrared, and it prints properly. However, when you relocate the wireless infrared printer, you find that your laptop is not able to send print jobs to the printer. What is the most likely cause of the issue?

- A. The printer driver is uninstalled from the laptop.
- B. The printer driver is not updated on the laptop.
- C. Printer is located at the distance of more than three feet from the laptop.
- D. The printing option is disabled in the Control Panel on the laptop.

**Correct Answer:** C **Explanation** 

# **Explanation/Reference:**

**Explanation:** 

The most likely cause of this issue is that the printer is now located at the distance of more than three feet from the laptop. If the printer is located at a distance more than 3 feet, this will create problem in communicating with the laptop.

Infrared is a communication medium used for wireless networks to transfer data between devices. Infrared can transmit signals at high rates because of the high bandwidth of infrared light. An infrared network can normally broadcast at 10 Mbps.

Answer option A is incorrect. According to the question, the printer was printing properly. It indicates that the driver is installed properly.

Answer option D is incorrect. There is no such option in the control panel for disabling printer. Answer option B is incorrect. There is no need of updating the printer driver because the printer was working properly.

### **QUESTION 37**

Which of the following is the most common method used by attackers to identify wireless networks?

- A. Back door
- B. Packet sniffing
- C. Packet filtering
- D. War driving

Correct Answer: D Explanation

# **Explanation/Reference:**

**Explanation:** 

War driving is the most common method used by attackers to identify wireless networks. In war driving, a person drives around businesses and neighborhoods attempting to locate a wireless access point (AP) by using a portable device.

Answer option B is incorrect. Packet sniffing is a process of monitoring data packets that travel across a

network. The software used for packet sniffing is known as sniffers. There are many packetsniffing programs that are available on the Internet. Some of these are unauthorized, which can be harmful for a network's security.

Answer option C is incorrect. Packet filtering is a method that allows or restricts the flow of specific types of packets to provide security. It analyzes the incoming and outgoing packets and lets them pass or stops them at a network interface based on the source and destination addresses, ports, or protocols. Packet filtering provides a way to define precisely which type of IP traffic is allowed to cross the firewall of an intranet. IP packet filtering is important when users from private intranets connect to public networks, such as the Internet.

Answer option A is incorrect. Back door is a program or account that allows access to a system by skipping the security checks. Many vendors and developers implement back doors to save time and effort by skipping the security checks while troubleshooting. Back door is considered to be a security threat and should be kept with the highest security. If a back door becomes known to attackers and malicious users, they can use it to exploit the system.

# **QUESTION 38**

In which of the following conditions does BIOS need to be updated? Each correct answer represents a complete solution. Choose two.

- A. If users have to use new hardware features or options that are supported by motherboard, but not supported by the computer BIOS.
- B. If the operating system installed on the computer has bugs.
- C. If the BIOS does not support new devices.
- D. If the software application installed on the computer stops responding frequently.

Correct Answer: AC Explanation

# **Explanation/Reference:**

Explanation:

The BIOS on a computer should be updated in the following conditions.

If the BIOS does not support new devices.

If users need to use new hardware features or options that are supported by motherboard, but not supported by the computer BIOS.

The BIOS can also be updated if a user has a device problem, and it is confirmed that the problem is due to BIOS.

What is BIOS?

Basic Input/ Output System (BIOS) are software that manages hardware and enables the operating system to communicate with the computer's hardware components. The BIOS software is built-in on a ROM chip, known as Complementary Metal Oxide Semiconductor (CMOS) chip, on the motherboard. Answer option D is incorrect. In this case, a user needs to contact the helpdesk of the software application provider to fix the issue.

Answer option B is incorrect. In case of operating system's bug, users need to install patches and service packs provided by the operating system vendor.

## **QUESTION 39**

Which of the following is the clock speed of the Accelerated Graphics Port (AGP) 8X expansion slot?

A. 266 MHz

B. 133 MHz

C. 533 MHz

D. 633 MHz

Correct Answer: C

**Explanation** 

# Explanation/Reference:

Explanation:

The clock speed of the Accelerated Graphics Port (AGP) 8X expansion slot is 533 MHz. AGP expansion

slot is a high speed 32-bit bus designed for high performance graphics and video support. It allows a video card to have direct access to a computer's RAM, which enables fast video performance. AGP provides a bandwidth of up to 2,133 MB/second. Answer option A is incorrect. The clock speed of Accelerated Graphics Port (AGP) 4X expansion slot is 266 MHz.

Answer option B is incorrect. The clock speed of Accelerated Graphics Port (AGP) 2X expansion slot is 133 MHz.

Answer option D is incorrect. The Accelerated Graphics Port (AGP) expansion slot does not support the clock speed of 633 MHz.

Reference. "http://en.wikipedia.org/wiki/Accelerated\_Graphics\_Port"

#### **QUESTION 40**

Which of the following stores user preferences related to a Web site?

- A. Cookie
- B. SSID
- C. Local User profile
- D. MAC address

Correct Answer: A Explanation

## **Explanation/Reference:**

Explanation:

A cookie is a small bit of text that accompanies requests and pages as they move between Web servers and browsers. It contains information that is read by a Web application, whenever a user visits a site. Cookies are stored in the memory or hard disk of client computers. A Web site stores information, such as user preferences and settings in a cookie. This information helps in providing customized services to users. There is absolutely no way a Web server can access any private information about a user or his computer through cookies, unless a user provides the information. A Web server cannot access cookies created by other Web servers. Answer option B is incorrect. SSID stands for Service Set Identifier. It is used to identify a wireless network. SSIDs are case sensitive text strings and have a maximum length of 32 characters. All wireless devices on a wireless network must have the same SSID in order to communicate with each other. The SSID on computers and the devices in WLAN can be set manually or automatically. Answer option D is incorrect. Media Access Control (MAC) address is a unique 48-bit address assigned to the network interface card (NIC) by the NIC manuurer. This physical address assigned to NIC is used for mapping in TCP/IP network communication. Answer option C is incorrect. Local user profile does not contain user preferences related to a Web site. Reference. "http://en.wikipedia.org/wiki/HTTP\_cookie"

#### **QUESTION 41**

Which of the following software can also be used as a basic security measure?

- A. Adware
- B. Visual TimeAnalyzer
- C. Screensaver
- D. Cookie

**Correct Answer**: C **Explanation** 

# Explanation/Reference:

Explanation:

The screensaver software can also be used as a basic security measure. A screensaver is a program initially designed to prevent phosphor burn-in on CRT and plasma computer monitors by blanking the screen or filling it with moving images or patterns when the computer is not in use. Modern screensavers are used primarily for entertainment or security. Answer option D is incorrect. A cookie is a small bit of text that accompanies requests and pages as they move between Web servers and browsers. It contains information that is read by a Web application, whenever a user visits a site. Cookies are stored in the

memory or hard disk of client computers. A Web site stores information, such as user preferences and settings in a cookie. This information helps in providing customized services to users. There is absolutely no way a Web server can access any private information about a user or his computer through cookies, unless a user provides the information. A Web server cannot access cookies created by other Web servers. Answer option B is incorrect. Visual Time Analyzer is software, which is used to track computer activities, working time, pauses, projects, costs, software, and Internet use automatically. It shows detailed, illustrated reports of the activities. Visual Time Analyzer also tells which programs were used for how long, when, and by whom. It gives parents control over their children's use of the computer. Visual Time Analyzer software has privacy safeguards. It does not monitor all user data such as passwords and personal documents, and does not record specific keystrokes or run screen captures as a background process.

Answer option A is incorrect. Adware is software that automatically downloads and display advertisements in the Web browser without user permission. When a user visits a site or downloads software, sometimes hidden adware software is also downloaded to display advertisement automatically. This can be quite irritating to user. Some adware can also be spyware.

## **QUESTION 42**

Which of the following aims to restrict certain dangerous substances commonly used in electronics and electronic equipment?

- A. RoHS directive
- B. IEEE standards
- C. IETF standards
- D. W3C standards

Correct Answer: A Explanation

# **Explanation/Reference:**

Explanation:

The Restriction of Hazardous Substances (RoHS) directive aims to restrict certain dangerous substances commonly used in electronics and electronic equipment. Answer option D is incorrect. The World Wide Web Consortium (W3C) is an international industry consortium that develops common standards for the World Wide Web to promote its evolution and interoperability. It was founded in October 1994 by Tim Berners-Lee, the inventor of the Web, at the Massachusetts Institute of Technology, Laboratory for Computer Science [MIT/LCS] in collaboration with CERN, where the Web had originated , with support from DARPA and the European Commission.

Answer option C is incorrect. Internet Engineering Task Force (IETF) is an open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and coordination of the operation and management of the Internet. It works towards introducing procedures for new technologies on the Internet. IETF specifications are released in Requests for

Comments (RFCs).

Answer option B is incorrect. The Institute of Electrical and Electronic Engineers (IEEE) is a society of technical professionals. It promotes the development and application of electro-technology and allied sciences. IEEE develops communications and network standards, among other activities. The organization publishes number of journals, has many local chapters, and societies in specialized areas. Reference. "http://www.rohs.gov.uk/Default.aspx"

# **QUESTION 43**

Your customer is very concerned about security for Wi-Fi at his home. He wants to make sure that only computers, he has authorized, can get on his Wi-Fi. What is the most appropriate security measure you can recommend?

- A. A Firewall
- B. WPA encryption
- C. Mac Filtering
- D. WEP encryption

Correct Answer: C

# **Explanation**

# Explanation/Reference:

Explanation:

Mac filtering only allows computers, which have their MAC address listed with the router, to connect. What is MAC address filtering?

MAC address filtering is a security method that enables a device to allow only certain MAC addresses to access a network. It can be configured on a Wireless Access Point (WAP) to allow only certain system MAC addresses to communicate with the rest of the network. MAC address filtering can be performed using either of the two policies. exclude all by default, then allow only listed clients; or include all by default, then exclude listed clients. MAC filtering can also be used on a wireless network to prevent certain network devices from accessing the wireless network. MAC addresses are allocated only to hardware devices, not to persons. Answer options D and B are incorrect. Any encryption will be based on password authentication, not on filtering specific computers. Only MAC filtering will do that. Answer option A is incorrect. A firewall will not prevent people or computers from connecting to your Wi-Fi. It will block certain, unwanted connections.

Reference. http://compnetworking.about.com/cs/wirelessproducts/qt/macaddress.htm

## **QUESTION 44**

Which of the following are the most likely causes of a virus attack? Each correct answer represents a complete solution. Choose all that apply.

- A. Installing an application from an unreliable source
- B. Downloading a file from an unknown Website
- C. Installing a .DLL file from an unreliable source
- D. Using a floppy, a compact disk, or a pen drive from an unreliable source

Correct Answer: ABCD

**Explanation** 

## **Explanation/Reference:**

Explanation:

The following are the most likely causes of a virus attack. Using a floppy, a compact disk, or a pen drive from an unreliable source Downloading file(s) from an unknown WebsiteInstalling an application or a .DLL file from an unreliable source A virus is a program code that is written for the destruction of data. This program requires writable media. A virus can infect boot sectors, data files, and system files. A computer virus passes from one computer to another on the network in the same way as a biological virus passes from one person to another.

## **QUESTION 45**

You are installing two hard disk drives on a computer. Which of the following possible combinations can be used? Each correct answer represents a complete solution. Choose all that apply.

- A. Install the second hard disk drive on the primary IDE controller. Designate one drive as Master and the other as Slave.
- B. Install the second hard disk drive on the secondary IDE controller ensuring that the first hard disk drive is on primary IDE controller. Designate both drives as Master.
- C. Install the second hard disk drive on the secondary IDE controller ensuring that the first hard disk drive is on the primary controller. Designate the second hard disk drive as Slave.
- D. Install both the hard disk drives on the primary IDE controller. Designate both drives as Secondary.

Correct Answer: AB

**Explanation** 

# Explanation/Reference:

Explanation:

While installing two hard disk drives on a computer, any one of the following two combinations can be used.

- 1. Install the drives, one each on the primary and secondary IDE controllers and designate both as Master.
- 2. Install both drives on the primary IDE controller and designate one as Master and the other as Slave. What are the jumper settings on IDE/EIDE drives?

Each IDE/EIDE drive must support the Master, Slave, and Cable Select types of jumper settings. The Master/Slave setting is accomplished by jumpering a set of pins on the hard disk/CD-ROM drive. If two drives are attached to one controller, one drive should be set as Master and the other as Slave. If both drives using the same controller are set as Master, or Slave, none of them will work. Answer option D is incorrect. There is no setting such as Secondary.

#### **QUESTION 46**

Which of the following maximum resolutions does the UXGA video technology supports?

A. 2560 x 1600

B. 1600 x 1200

C. 2048 x 1536

D. 1280 x 1024

Correct Answer: B Explanation

# **Explanation/Reference:**

Explanation:

UXGA stands for Ultra eXtended Graphics Array. It is a display standard that refers to video adapters. This display standard is capable of displaying the resolution of 1600 x 1200 pixels. A UXGA display provides four times more pixels than an 800 x 600 display. where 1600 refers to horizontal pixels, and 1200 refers to vertical pixels.

Answer option C is incorrect. The QXGA video technology supports a maximum resolution of 2048 x 1536. Answer option A is incorrect. The WQXGA video technology supports a maximum resolution of 2560 x 1600.

Answer option D is incorrect. The SXGA video technology supports a maximum resolution of 1280 x 1024. Reference. "http://www.computerhope.com/jargon/u/uxga.htm"

# **QUESTION 47**

Which of the following sleep modes is the most power hungry mode?

A. S1

B. S2

C. S0

D. S3

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

The S1 mode is the most power hungry sleep mode. In this mode, the CPU stops executing instructions and the processor cash is flushed, but power is still supplied to the CPU and memory. All other unused devices are powered down.

Answer option D is incorrect. The S3 mode is also known as Stand by mode. In this mode, the computer supplies power only to the RAM. This mode is also known as Suspend to RAM. Answer option B is incorrect. The S2 mode uses less power than S1 mode. In this mode, the computer's processor is powered down.

Answer option C is incorrect. There is no such sleep mode as S0.

#### **QUESTION 48**

Which of the following switches of the XCOPY command copies file ownerships and NTFS permissions on files while copying the files?

A. /p

B. /s

C. /r

D. /o

Correct Answer: D Explanation

# Explanation/Reference:

Explanation:

The /o switch of the XCOPY command copies file ownerships and NTFS permissions on files while copying them.

In NTFS file system, when a new file is created, it inherits permissions from its new parent directory. This might cause security issues when a user copies files. In this case users who did not have access to the files might gain access on them. Therefore, in order to retain original file permissions, users have to use the XCOPY /o command.

Answer option B is incorrect. The /s switch of the XCOPY command is used to copy directories and subdirectories except empty directories.

Answer option A is incorrect. The /p switch of the XCOPY command prompts the user before creating each destination file.

Answer option C is incorrect. The /r switch of the XCOPY command overwrites Read only files while copying data.

Reference. "http://www.computerhope.com/cdhlp.htm"

## **QUESTION 49**

Which of the following statements about a smart card are true? Each correct Answer represents a complete solution. Choose two.

- A. It is used to securely store public and private keys for log on , e-mail signing and encryption, and file encryption.
- B. It is a device that works as an interface between a computer and a network.
- C. It is a device that routes data packets between computers in different networks.
- D. It is a device that contains a microprocessor and permanent memory.

Correct Answer: AD

**Explanation** 

# Explanation/Reference:

Explanation:

A smart card is a credit card-sized device that contains a microprocessor and permanent memory. It is used to securely store public and private keys for log on, e-mail signing and encryption, and file encryption. To use a smart card, a computer must have a smart card reader attached with it. What is a smart card reader? A smart card reader is an interface device, which is used to read information from or write information to a smart card. Answer option B is incorrect. A network adapter is a device that works as an interface between a computer and a network. Answer option C is incorrect. A router is a device that routes data packets between computers in different networks. Reference:

TechNet, Contents: "Appendix C - Hardware Support"

## **QUESTION 50**

Which of the following ports is also known as PS/2?

- A. 6-pin Mini-DIN connector
- B. 5-pin DIN connector
- C. 4-pin Mini-DIN connector
- D. USB connector

Correct Answer: A

**Explanation** 

# **Explanation/Reference:**

Explanation:

The 6-pin Mini-DIN connector is also known as PS/2 port. It uses four of the six pins on a keyboard connector. Pin 1 is used for keyboard data signal, pin 3 is used for grounding, pin 4 has +5 Volt DC, and pin 5 is used for keyboard clock. Pin 2 and pin 6 are not used. The PS/2 6-pin Mini-DIN connector is used to connect a keyboard and mouse. Answer option B is incorrect. The 5-pin DIN connector is used on a computer that has a Baby-AT form or motherboard. Answer option D is incorrect. A Universal Serial Bus (USB) connector is used with the USB cable for connecting various electronic devices to a computer. USB supports a data speed of up to 12 megabits per second. Two types of connectors are used with USB, namely USB-A Type and USB-B Type.

#### **QUESTION 51**

Which of the following statements are true about Universal Serial Bus (USB)? Each correct Answer represents a complete solution. Choose two.

- A. USB supports hot plugging.
- B. You can connect up to 127 peripheral devices to a single USB port.
- C. You can connect up to 16 peripheral devices to a single USB port.
- D. USB does not support Plug n Play installation.

Correct Answer: AB Explanation

## **Explanation/Reference:**

Explanation:

Universal Serial Bus (USB) is a standard-based, external bus for a computer that brings the Plug and Play capability of hardware devices. You can use a single USB port to connect up to 127 peripheral devices, including speakers, CD-ROM drives, tape drives, keyboards, scanners, and cameras. USB supports hot plugging, which means that you can install or remove a USB device while the computer is running and the operating system automatically reconfigures itself accordingly. USB eliminates the need to install internal cards into dedicated computer slots and reconfigure the system. References:

# **QUESTION 52**

Which of the following types of attacks is often performed by looking surreptitiously at the keyboard or monitor of an employee's computer?

- A. Man-in-the-middle attack
- B. Denial-of-Service (DoS) attack
- C. Buffer-overflow attack
- D. Shoulder surfing attack

**Correct Answer:** D **Explanation** 

# Explanation/Reference:

Explanation:

The Shoulder surfing attack is often performed by looking surreptitiously at the keyboard or monitor of an employee's computer.

Shoulder surfing is a type of in person attack in which an attacker gathers information about the premises of an organization. This attack is often performed by looking surreptitiously at the keyboard or monitor screen of an employee's computer while he is typing in his password at any access point such as a terminal/Web site. An attacker can also gather information by looking at open documents on the employee's desk, posted notices on the notice boards, etc. Answer option A is incorrect. Man-in-the-middle attacks occur when an attacker successfully inserts an intermediary software or program between two communicating hosts. The intermediary software or program allows attackers to listen to and modify the communication packetspassing between the two hosts. The software intercepts the communication packets and then sends the information to the receiving host. The receiving host responds to the software, presuming it to be the legitimate client. Answer option C is incorrect. A buffer-overflow attack is performed when a hacker fills a field, typically an address bar, with more characters than it can accommodate. The

excess characters can be run as executable code, effectively giving the hacker control of the computer and overriding any security measures set.

Answer option B is incorrect. A Denial-of-Service (DoS) attack is mounted with the objective of causing a negative impact on the performance of a computer or network. It is also known as network saturation attack or bandwidth consumption attack. Attackers make Denial-of-Service attacks by sending a large number of protocol packets to a network. A DoS attack can cause the following to occur: Saturate network resources.

Disrupt connections between two computers, thereby preventing communications between services. Disrupt services to a specific computer.

A SYN attack is a common DoS technique in which an attacker sends multiple SYN packets to a target computer. For each SYN packet received, the target computer allocates resources and sends an acknowledgement (SYN-ACK) to the source IP address. Since the target computer does not receive a response from the attacking computer, it attempts to resend the SYN-ACK. This leaves TCP ports in the half-open state. When an attacker sends TCP SYNs repeatedly before the half-open connections are timed out, the target computer eventually runs out of resources and is unable to handle any more connections, thereby denying service to legitimate users. References:

## **QUESTION 53**

You are responsible for technical support at a company. One of the employees complains that his new laptop cannot connect to the company wireless network. You have verified that he is entering a valid password/passkey. What is the most likely problem?

- A. His operating system is incompatible.
- B. A firewall is blocking him.
- C. His laptop is incompatible.
- D. MAC filtering is blocking him.

**Correct Answer**: D **Explanation** 

## **Explanation/Reference:**

Explanation:

The most likely problem is that, since this is a new laptop, the laptop's MAC address is not listed with the router, and is therefore blocked by MAC filtering.

What is MAC address filtering?

MAC address filtering is a security method that enables a device to allow only certain MAC addresses to access a network. It can be configured on a Wireless Access Point (WAP) to allow only certain system MAC addresses to communicate with the rest of the network. MAC address filtering can be performed using either of the two policies: exclude all by default, then allow only listed clients; or include all by default, then exclude listed clients. MAC filtering can also be used on a wireless network to prevent certain network devices from accessing the wireless network. MAC addresses are allocated only to hardware devices, not to persons. Answer option B is incorrect. Firewalls block certain types of traffic, but would not completely block an attempt to connect.

Answer options A and C are incorrect. Wireless networking is not operating system or hardware specific. Macintosh, Linux, Windows, all can connect to the same wireless network. References:

#### **QUESTION 54**

Which of the following is a technology that allows you to hear and watch video clips as soon as they start downloading from the Web site, instead of waiting for the download to complete?

- A. Session Initiation Protocol
- B. Streaming media
- C. HTTP streaming
- D. Slipstreaming

Correct Answer: B Explanation

# **Explanation/Reference:**

Explanation:

Streaming media is a technology that allows you to hear and watch video clips as soon as they start downloading from the Web site, instead of waiting for the download to complete. Answer option C is incorrect. HTTP streaming is a simple mechanism for sending data from a Web server to a Web browser in response to an event. Every time a seek operation is performed, the media player makes a request to the server side script with a couple of GET variables. One is the file to play and one is the start position. The server side script then starts the video from the offset given. For example, after starting the video, a user can jump directly to any part in the video without having to wait until it is loaded. Answer option A is incorrect. Session Initiation Protocol (SIP), designed by Henning

Schulzrinne and Mark Handley in 1996, is a signaling protocol, widely used for setting up and tearing down multimedia communication sessions such as voice and video calls over the Internet (VoIP). Answer option D is incorrect. Slipstreaming is a process of integrating service pack updates into the Windows XP Professional setup files. The slipstreaming process eliminates the need of deploying service pack update on each computer separately.

References:

## **QUESTION 55**

Which of the following refers to the data rate supported by a network connection or interface?

- A. Bandwidth
- B. Preboot Execution Environment (PXE)
- C. Branding
- D. Spam

Correct Answer: A Explanation

## **Explanation/Reference:**

Explanation:

Bandwidth is a term that refers to the data rate supported by a network connection or interface. Bandwidth (or digital bandwidth) is a measurement of how much data can be sent in a period of time. It is a data rate measured in bits. The standard unit of digital bandwidth is bits per second (bps). In radio communication, bandwidth (analogue bandwidth) is the range of frequencies occupied by the radio signals. The standard unit of analogue bandwidth is Hertz (Hz). Answer option C is incorrect. In Web site designing, branding refers to the look and feel of a Web site. Branding helps in differentiating a site from its competitors and also helps the customer to develop a relationship with the Web site. The look and feel of a Web site comes through logo, fonts, color schemes, and symbols used in the Web site. The overall look of the Web site should be consistent. Answer option B is incorrect. Preboot Execution Environment (PXE) is an environment to boot computers using a network interface independently of available data storage devices like hard disks or installed operating systems. PXE is also known as Pre-Execution Environment. Answer option D is incorrect. Spam is a term that refers to the unsolicited e-mails sent to a large number of e-mail users. The number of such e-mails is increasing day by day, as most companies now prefer to use e-mails for promoting their products. Because of these unsolicited e-mails, legitimate e- mails take a much longer time to deliver to their destination. The attachments sent through spam may also contain viruses. However, spam can be stopped by implementing spam filters on servers and e- mail clients. References:

# **QUESTION 56**

Which of the following are serial interfaces?

Each correct Answer represents a complete solution. Choose all that apply.

- A. EPP
- B. USB
- C. FireWire
- D. IEEE 1284

Correct Answer: BC

**Explanation** 

# **Explanation/Reference:**

Explanation:

There are three types of serial interfaces: Standard, Universal Serial Bus (USB), and FireWire. IEEE 1394 is a high-speed serial bus that provides enhanced PC connectivity to a wide range of devices. These devices include consumer audiovisual components, traditional PC storage devices, and handheld devices. IEEE 1394 is also known as FireWire. Universal Serial Bus (USB) is a new serial interface, used to connect devices to a computer. Answer option D is incorrect. Institute of Electrical and Electronics Engineers (IEEE) 1284 is a specification of a printer cable used to take advantage of bi- directional printing. Typically, bi-directional cables have the number 1284 printed on them. Answer option A is incorrect. Enhanced Parallel Port (EPP) is a type of parallel port, which gives highspeed performance throughput for printers.

References:

## **QUESTION 57**

Which of the following devices has its own BIOS?

- A. Hard disk drive
- B. Sound card
- C. Network interface card
- D. Video adapter

**Correct Answer:** D **Explanation** 

# Explanation/Reference:

Explanation:

A video adapter, also known as display adapter or video board, is an integrated circuit card in a computer or, in some cases, a monitor that provides digital-to-analog, video RAM, and a video controller so that data can be sent to a computer's display. The video adapter has its own Basic Input Output system (BIOS), processor, and memory.

Answer options A, B, and C are incorrect. Hard disk drive, sound card, and network interface card do not have their own BIOS. The hard disk drive configuration is stored on system BIOS. BIOS does not store information about sound cards and network interface cards.

## **QUESTION 58**

Which of the following are dual core processors? Each correct Answer represents a complete solution. Choose two.

- A. AMD Athlon(tm) 64 X2
- B. Intel Pentium 4
- C. Intel(r) Pentium(r) processor Extreme Edition
- D. AMD Athlon(tm)

Correct Answer: AC

**Explanation** 

# **Explanation/Reference:**

Explanation:

The Intel(r) Pentium(r) processor Extreme Edition and AMD Athlon(tm) 64 X2 are dual core technology processors manuared by Intel and AMD, respectively.

What is dual core processor?

A dual core processor is a CPU with two separate cores in the same chip. Each core has its own cache. A dual core processor is an equivalent of two microprocessors in a computer. In a dual core processor, both cores handle incoming data strings simultaneously, resulting in improved efficiency. Hence a dual core system is faster than a single-core or traditional processor system. A dual core processor does not require a new motherboard, but can be used in existing boards having the correct socket. Intel and AMD are the companies that are making dual core processors. Answer options D and B are incorrect. AMD Athlon(tm)

and Intel Pentium 4 are not dual core processors. References:

# **QUESTION 59**

Which of the following switches is used with the XCOPY command to copy directories and subdirectories, including empty directories?

A. /q

B. /o

C. /s

D. /e

**Correct Answer:** D **Explanation** 

# **Explanation/Reference:**

Explanation:

The /e switch is used with the XCOPY command to copy directories and subdirectories, including empty directories. Answer option B is incorrect. The /o switch of the XCOPY command copies file ownerships and NTFS permissions on the files while copying them. Answer option C is incorrect. The /s switch of the XCOPY command is used to copy directories and subdirectories, except empty directories. Answer option A is incorrect. The /q switch of the XCOPY command does not display file names while copying them. References:

#### **QUESTION 60**

Which of the following provides authentication, encryption and data integrity for wireless devices?

A. PAP

B. WAN

C. WAP

D. WTLS

**Correct Answer:** D **Explanation** 

# **Explanation/Reference:**

Explanation:

WTLS provides authentication, encryption and data integrity for wireless devices. Wireless Transport Layer Security (WTLS) is a security layer of WAP, which is specifically designed for a wireless environment. It provides privacy, data integrity, and authentication for client-server communications over a wireless network. WTLS ensures that a client and server are authenticated so that wireless transactions remain secure and the connection is encrypted. WTLS is required because a wireless network does not provide end-to-end security. Answer option B is incorrect. Wide Area Network (WAN) represents a network spanned in a large geographic area. WANs connect two or more LANs separated by a large distance. To connect LANs in a WAN network, carrier networks such as telephone companies provide the services. The basic types of connections or circuits WAN services use are circuit-switched, cell-switched, packetswitched, and dedicated connections. Answer option A is incorrect. Password Authentication Protocol (PAP) is the least sophisticated authentication protocol, used mostly when a client calls a server running an operating system other than Windows. PAP uses plain text passwords. Answer option C is incorrect. The Wireless Access Protocol (WAP) is a technology used with wireless devices. The functionality of WAP is equivalent to that of TCP/IP. WAP uses a smaller version of HTML called Wireless Markup Language (WML) to display Internet sites. References:

# **QUESTION 61**

Mark wants to connect a printer and mouse to his laptop. Which of the following is the best wireless technology to use?

- A. Bluetooth
- B. 802.11
- C. 802.11b
- D. Infrared

Correct Answer: A Explanation

# **Explanation/Reference:**

Explanation:

Bluetooth is the best wireless technology to connect peripheral devices, such as a printer and mouse, to a laptop. Bluetooth is a standard for very low powered and short-range radio connections. It is used to link personal access devices (PDA), mobile phones and laptops, and provides them with Internet access via hot spots. Bluetooth uses the 2.4 Ghz spectrum with a data rate of about 1 Mbps. As a radio technology, Bluetooth does not require line of sight like an infrared connection requires. The maximum transmission range of Bluetooth is around 10 meters. High-powered Bluetooth would extend the range to 100 meters. Answer options B and C are incorrect. These are the latest networking specifications for wireless local area networks (WLANs) developed by the Institute of Electrical and Electronic Engineers. Answer option D is incorrect. Infrared medium transmits data at almost the same rate as a parallel port does. Infrared data transfer requires a clear line of sight between devices, and the communicating devices must be in close proximity. Although infrared technology can be used to connect peripherals to a computer, Bluetooth technology is the best for this purpose.

#### **QUESTION 62**

What is the maximum resolution that the WUXGA video technology supports?

- A. 2048 x 1536
- B. 1920 x 1200
- C. 3840 x 2400
- D. 1600 x 1200

Correct Answer: B Explanation

# **Explanation/Reference:**

Explanation:

The WUXGA video technology supports the maximum resolution of 1920 x 1200. Where 1920 refers to horizontal pixels, and 1200 refers to vertical pixels. Answer option A is incorrect. The QXGA video technology supports the maximum resolution of 2048 x 1536. Answer option D is incorrect. UXGA stands for Ultra eXtended Graphics Array. It is a display standard that refers to video adapters. This display standard is capable of displaying the resolution of  $1600 \times 1200 \text{ pixels}$ . A UXGA display provides four times more pixels than an  $800 \times 600 \text{ display}$ . Answer option C is incorrect. The WQUXGA video technology supports the maximum resolution of  $3840 \times 2400$ . References:

1 (0101011000.

## **QUESTION 63**

What does Wireless Transport Layer Security (WTLS) provide for wireless devices? Each correct Answer represents a complete solution. Choose all that apply.

- A. Data integrity
- B. Encryption
- C. Bandwidth
- D. Authentication

Correct Answer: ABD

**Explanation** 

## **Explanation/Reference:**

Explanation:

Wireless Transport Layer Security (WTLS) is a security layer of WAP, which is specifically designed for a wireless environment. It provides privacy, data integrity, and authentication for client-server communications over a wireless network. WTLS ensures that a client and server are authenticated so that wireless transactions remain secure and the connection is encrypted. WTLS is required because a wireless network does not provide end-to-end security.

What is authentication? Authentication is a process of verifying the identity of a person, network host, or system process.

The authentication process compares the provided credentials with the credentials stored in the database of an authentication server. Answer option C is incorrect. WTLS cannot provide bandwidth to wireless devices.

References:

## **QUESTION 64**

Which of the following software displays advertisements, whether or not the user has consented?

- A. Trojan horse
- B. Honeypot
- C. Spyware
- D. Adware

**Correct Answer**: D **Explanation** 

# Explanation/Reference:

Explanation:

Adware is software that displays advertisements, whether or not the user has consented. Adware is software that automatically downloads and display advertisements in the Web browser without user permission. When a user visits a site or downloads software, sometimes a hidden adware software is also downloaded to display advertisement automatically. This can be quite irritating to user. Some adware can also be spyware. Answer option C is incorrect. Spyware is a program that takes partial control over a user's computer without user's permission. Spyware programs can collect various types of personal information, such as Internet surfing habits, and Web sites that the user has visited. Spyware programs can also interfere with the control of a user's computer, such as installing additional software, redirecting Web browser activities, accessing Web sites blindly, etc. Answer option B is incorrect. A honeypot is a term in computer terminology used for a trap that is set to detect, deflect, or in some manner counteract attempts at unauthorized use of information systems. Generally it consists of a computer, data, or a network site that appears to be part of a network, but is actually isolated, and monitored, and which seems to contain information or a resource of value to attackers. Answer option A is incorrect. Trojan horse is a malicious software program code that masquerades itself as a normal program. When a Trojan horse program is run, its hidden code runs to destroy or scramble data on the hard disk. An example of a Trojan horse is a program that masquerades as a computer logon to retrieve user names and password information.

The developer of a Trojan horse can use this information later to gain unauthorized access to computers. Trojan horses are normally spread by e-mail attachments. Unlike viruses, Trojan horses do not replicate themselves but only destroy information on hard disks. References:

## **QUESTION 65**

Which of the following protocols transmits error messages and network statistics?

- A. ICMP
- B. DHCP
- C. TCP
- D. NNTP

Correct Answer: A Explanation

# Explanation/Reference:

Explanation:

ICMP transmits error messages and network statistics.

Internet Control Message Protocol (ICMP) is an integral part of IP. It is used to report an error in datagram processing. The Internet Protocol (IP) is used for host-to-host datagram service in a network. The network is configured with connecting devices called gateways. When an error occurs in datagram processing, gateways or destination hosts report the error to the source hosts through the ICMP protocol. The ICMP messages are sent in various situations, such as when a datagram cannot reach its destination, when the gateway cannot direct the host to send traffic on a shorter route, when the gateway does not have the buffering capacity, etc. Answer option C is incorrect. Transmission Control Protocol (TCP) is a reliable, connection-oriented protocol operating at the transport layer of the OSI model. It provides a reliable packet delivery service encapsulated within the Internet

Protocol (IP). TCP guarantees the delivery of packets, ensures proper sequencing of data, and provides a checksum feature that validates both the packet header and its data for accuracy. If the network corrupts or loses a TCP packet during transmission, TCP is responsible for retransmitting the faulty packet. It can transmit large amounts of data. Application-layer protocols, such as HTTP and FTP, utilize the services of TCP to transfer files between clients and servers. Answer option D is incorrect. NNTP stands for Network News Transfer Protocol (NNTP). It is a simple

ASCII text-based protocol used to post, distribute, and retrieve network news messages from NNTP servers and NNTP clients on the Internet. Answer option B is incorrect. Dynamic Host Configuration Protocol (DHCP) is a TCP/IP standard used to dynamically assign IP addresses to computers, so that they can communicate with other network services. It reduces the complexity of managing network client IP address configuration. A DHCP server configures DHCP-enabled client computers on the network. It runs on servers only. It also provides integration with the Active Directory directory service. References:

#### **QUESTION 66**

Which of the following power sources are used to power a laptop?

- A. Solar panel
- B. AC power
- C. Battery
- D. Docking station

Correct Answer: BC

**Explanation** 

# Explanation/Reference:

Explanation:

AC power and batteries are used to power a laptop. Lithium-ion batteries are used to power laptops. The lithium battery has a long life.

Answer options A and D are incorrect. Solar panel and docking station are not used to power a laptop. Solar panels are devices that convert energy from the sun light. Currently, there is no popular brand that uses solar cell to power a laptop.

A docking station is a hardware device that contains slots for expansion cards and storage devices, and ports for peripheral devices such as printers and monitors. It allows laptops to connect to printers, storage devices, and other devices that are not usually available with laptops. A docking station also includes a network interface card that connects a laptop to the network and enables users to use a full-size keyboard when they are not traveling.

References:

# **QUESTION 67**

Mark works as a Network Administrator for NetTech Inc. The network has 150 Windows 2000 Professional client computers and four Windows 2000 servers. All the client computers are able to connect to the Internet. Mark is concerned about malware infecting the client computers through the Internet. What will Mark do to protect the client computers from malware? Each correct Answer represents a complete solution. Choose two.

A. Educate users of the client computers about the problems arising due to malware.

- B. Educate users of the client computers to avoid malware.
- C. Prevent users of the client computers from executing any programs.
- D. Assign Read-Only permission to the users for accessing the hard disk drives of the client computers.

Correct Answer: AB

**Explanation** 

# **Explanation/Reference:**

Explanation:

Mark will do the following to protect the client computers from malware:

Educate users of client computers about the problems arising due to malware.

Educate users of client computers to avoid malware.

If an executable program is attached to an e-mail and the user is unsure about the source, then he should delete the e-mail immediately.

Moreover, users should not download any applications or executable files from unknown sources, and should be careful when exchanging files with other users. Malware are malicious software programs that cause damage to a computer, server, or computer network. All software such as a virus, spyware, and Trojan, etc., are malware.

# **QUESTION 68**

You have a customer who wants to install Windows XP professional on her computer. What is the minimum amount of RAM she must have for this to work?

- A. 128 Megabytes
- B. 64 Megabytes
- C. 2 Gigabytes
- D. 1 Gigabyte

Correct Answer: B Explanation

# **Explanation/Reference:**

Explanation:

64 Megabytes is the minimum. Now, this may seem odd as many modern machines come with 1, 2, or even 4 gigabytes of RAM. Remember, we are asking in this question what the minimum amount of RAM is. You should absolutely consider getting more RAM. What are the minimum requirements for installing Windows XP Professional? The minimum requirements for installing Windows XP Professional are: Processor: Pentium II processor running at 233MHz or faster.

RAM: 64MB minimum. Microsoft recommends 128MB RAM.

Hard Disk Drive: 1.5GB of free hard disk space for boot partition. More space will be needed if installing over a network.

Video Card and Monitor: Running at VGA resolution or higher. Network Card: PXE-enabled or a network boot disk and network card for network-based installation. Other Appliances: CD-ROM or DVD drive for CD-ROM-based and DVD-based installations, Keyboard and pointing device. Answer options D, A, and C are all incorrect. Obviously more RAM is always a good idea, but these numbers are not the minimum requirements.

References:

# **QUESTION 69**

You are selecting RAM for a new PC. You are very concerned about making sure errors are handled. Which of the following types of RAM should you select?

- A. RamBus
- B. Non Parity RAM
- C. ECC RAM
- D. Logic Parity RAM

**Correct Answer**: C **Explanation** 

# **Explanation/Reference:**

Explanation:

Parity RAM can indeed handle error correction, however is not supported in most new computers. ECC is supported. What is ECC memory module?

An Error Correcting Code (ECC) memory module detects and corrects single-bit errors in memory. It helps a computer to continue working without interruption and data corruption. Although ECC can detect both single-bit and double-bit errors, it can only correct single-bit errors. As most memory errors are of a single-bit nature, ECC provides high system reliability and attendant availability. An ECC- based computer is a good choice for servers. Answer option B is incorrect. Non parity RAM offers no error checking at all. Answer option D is incorrect. Logic Parity is a mechanism whereby a non parity RAM chip can simulate parity. Answer option A is incorrect. Rambus is unrelated to the issue of parity. What is RIMM? Rambus Inline Memory Module (RIMM) is a type of memory that has 184 pins. It was developed by Rambus, Intel, and Kingston. This module only supports Rambus memory and fits on its own slot. References:

# **QUESTION 70**

What is the maximum data transmission speed of IEEE 802.11b wireless networks?

- A. 54 Mbps
- B. 600 Mbps
- C. 600 Gbps
- D. 11 Mbps

**Correct Answer**: D **Explanation** 

# Explanation/Reference:

Explanation:

The maximum data transmission speed of IEEE 802.11b networks is 11 Mbps. The IEEE 802.11b standard applies to wireless LAN networks that use radio waves as the transmission medium. These networks each have a separate media access control mechanism, known as Carrier Sense Multiple Access with Collision Avoidance (CSMS/CA), that works like the CSMA/CD mechanism used by the Ethernet. The difference is that in this protocol, when a computer sends its signals, the receiving computer performs a cyclical redundancy check and sends an acknowledgement message to the sending computer if no error is detected. Answer option A is incorrect. The IEEE 802.11a and IEEE 802.11g networks have data transmission speeds of 54 Mbps.Answer option B is incorrect. The IEEE 802.11n network has maximum data transmission speed of 600 Mbps.Answer option C is incorrect. There is no such standard that has a maximum data transmission speed of 600 Gbps. References:

# **QUESTION 71**

Which of the following types of parental controls is used to limit access to the Internet contents?

- A. Content filter control
- B. Bandwidth control
- C. Usage management tool
- D. Monitoring control

Correct Answer: A Explanation

# **Explanation/Reference:**

Explanation:

Content filter control is a type of parental control that is used to limit access to the Internet content. Answer option D is incorrect. Monitoring control is a type of parental control that is used to track locations and activities when using the device. Answer option C is incorrect. Usage management tool is a type of parental control that allows parents to enforce learning time into child computing time. Answer option B is

incorrect. There is no parental control such as bandwidth control. References:

## **QUESTION 72**

Andrew has a personal computer. One morning, he starts his computer and finds the following error message: "CMOS checksum failure."What are the most likely causes of this error? Each correct Answer represents a complete solution. Choose two.

- A. BIOS has become outdated.
- B. The CMOS battery has failed.
- C. The CMOS chip has failed.
- D. Software stored in the CMOS battery is infected by a virus.

Correct Answer: BC

**Explanation** 

## **Explanation/Reference:**

Explanation:

This error message is displayed when the BIOS detects a memory problem in the CMOS. The following are the most likely causes of the error:

The CMOS battery has failed.

The CMOS chip has failed.

In order to rectify the error, a technician should try to replace the CMOS battery. If this step does not work, it may indicate that the CMOS chip is bad.

Answer option A is incorrect. An outdated BIOS will not display this error. The outdated BIOS may create problems with new hardware added to the computer. Answer option D is incorrect. The CMOS battery does not contain any software and cannot be infected by viruses.

#### **QUESTION 73**

What are the benefits of using Universal Serial Bus (USB) 2.0 over legacy communication ports such as RS-232 and parallel ports? Each correct Answer represents a complete solution. Choose all that apply.

- A. Easy configuration of hardware devices
- B. Expansion
- C. Security
- D. Speed

Correct Answer: ABD

**Explanation** 

## **Explanation/Reference:**

Explanation:

Universal Serial Bus (USB) is a high speed bus standard developed by Compaq, IBM, DEC, Intel, Microsoft, NEC, and Northern Telecom. It provides the Plug and Play capability of Windows to external hardware devices. USB supports hot plugging, which means that a USB device can be installed or removed while the computer is running. A single USB port can be used to connect up to 127 peripheral devices, such as CD-ROM drives, tape drives, keyboards, scanners etc. USB 1.1 has a maximum data transfer rate of 12 Mbps, whereas USB 2.0 has a maximum data transfer rate of 480 Mbps. USB 2.0 is fully backward compatible with USB 1.1. By connecting a USB hub to a USB port on a computer, you can connect multiple devices to the computer and therefore get the benefit of expansion using the same port. Answer option C is incorrect. USB ports have nothing to do with security.

# **QUESTION 74**

Which of the following sleep modes is also known as Hibernation in Windows operating systems?

- A. S3
- B. S2
- C. S4

D. S1

**Correct Answer:** C **Explanation** 

## Explanation/Reference:

Explanation:

The S4 sleep mode is also known as Hibernation or hibernate mode in Windows operating systems. Hibernate mode is a power saving feature for computers. In hibernate mode, the current state of a computer is saved to the hard disk, and the computer shuts down. A user will have to power on the computer to restore the previous settings. When a computer resumes from hibernate mode, it reads the saved settings from the disk and restores the system state as it was before it entered hibernate mode. By default, hibernate mode is disabled. If a computer is not ACPI-enabled or APM-enabled, users will have to enter hibernate mode manually. Users cannot set the computer to automatically hibernate after a certain time. With ACPI-enabled and APM-enabled computers, users are able to set hibernate mode automatically.

Answer option D is incorrect. The S1 mode is the most power hungry sleep mode. In this mode, the CPU stops executing instructions and the processor cash is flushed, but power is still supplied to the CPU and memory. All other unused devices are powered down. Answer option B is incorrect. The S2 mode uses less power than S1 mode. In this mode, the computer's processor is powered down. Answer option A is incorrect. The S3 mode is also known as Stand by mode. In this mode, the computer supplies power only to the RAM. This mode is also known as Suspend to RAM.

#### **QUESTION 75**

Which of the following can occur if the power cable runs along with the computer network cable?

- A. EMI
- B. ESD
- C. Broadcast storm
- D. Surge

Correct Answer: A Explanation

## Explanation/Reference:

Explanation:

If the power cable runs along with the computer network cable, radiation from the power cable, known as electromagnetic interference (EMI), may be inducted into the computer network cable affecting the signals that pass through it. Answer option B is incorrect. ESD stands for Electrostatic discharge. The static electricity that we generate everyday creates ESD. If you walk across a carpet and touch someone, you experience a mild shock. Electrostatic discharge occurs when the electrostatic charge is transferred from one charged entity to another entity sensitive to that charge. To minimize Electrostatic discharge (ESD) problems, consider wearing a wrist strap when you are working with computer components. A wrist strap is a wire with a watchband-style strap at one end and a plug or clip on the other end. The wrist strap plug or clip is connected to the ground or to the piece of equipment being worked on.

Answer option D is incorrect. Surge is a momentary voltage variation (+/- 170 volts) that lasts from one microsecond to a few milliseconds. Turning on and off large inductive electrical devices such as air conditioners and refrigerators can cause a surge. Answer option C is incorrect. Broadcast storm is a situation in which one or more network devices send jabber packets constantly, thereby increasing the traffic. A faulty network interface card (NIC) that sends jabber packets can be detected by the network monitor software. A faulty NIC can cause a broadcast storm on the network. Broadcast storms caused by a faulty network interface card can be resolved by disabling or replacing the card.

## **QUESTION 76**

Which of the following are types of social engineering attacks? Each correct Answer represents a complete solution. Choose two.

- A. An unauthorized person gains entrance to the building where the company's database server resides and accesses the server by pretending to be an employee.
- B. An unauthorized person inserts an intermediary software or program between two communicating

hosts to listen to and modify the communication packets passing between the two hosts.

- C. An unauthorized person calls a user and pretends to be a system administrator in order to get the user's password.
- D. An unauthorized person modifies packet headers by using someone else's IP address to his identity.

Correct Answer: AC

**Explanation** 

## **Explanation/Reference:**

Explanation:

Following are the types of social engineering attacks: 1.An unauthorized person calls a user and pretends to be a system administrator in order to get the user's password. 2.An unauthorized person gains entrance to the building where the company's database server resides and accesses the server by pretending to be an employee. A social engineering attack is based on misleading users or administrators at the target site. Social engineering attacks are usually carried out by telephoning users or operators and pretending to be an authorized user in order to gain unauthorized access to systems. Answer option D is incorrect. Spoofing is a technique that makes a transmission appear to have come from an authentic source by forging the IP address, email address, caller ID, etc. In IP spoofing, a hacker modifies packet headers by using someone else's IP address to his identity. However, spoofing cannot be used while surfing the Internet, chatting on-line, etc. because forging the source IP address causes the responses to be misdirected.

#### **QUESTION 77**

Your customers Windows XP machine has become unusable due to some unknown cause. You want to put the computer into a working state again. What is the best way to do this?

- A. Simply put the Windows Recovery CD in and the recovery process will start.
- B. Reinstall Windows.
- C. Use the Windows Recovery Console with the Windows Recovery CD to put the system back in a working state.
- D. Simply uninstall any new software.

**Correct Answer:** C **Explanation** 

#### **Explanation/Reference:**

Explanation:

When your system becomes unusable and you cannot trace the cause, it may become necessary to do a Windows Recovery. This will require the Windows Recovery CD and the Windows Recovery Console. Recovery Console is a command-line console that enables administrators to repair a computer. From Recovery Console, administrators can start and stop services, read and write data on a local drive, repair the master boot record (MBR), format drives, and perform other administrative tasks. The Recovery Console can be run using the following two ways: In case the computer does not start, Recovery Console can be run using the Windows setup CD-ROM. Otherwise, the Recovery Console can be run from the option in the boot menu.

Answer option A is incorrect. The CD will not work by itself; you need to use the Windows Recovery Console also. Answer option D is incorrect. You do not know if the software is causing the problem or if an uninstall will correct it. Answer option B is incorrect. Recovery is a better option and is quicker and less disruptive than a full installation.

References:

## **QUESTION 78**

Which of the following terms refers to proprietary software that is provided to users without payment on a trial basis and is often limited by any combination of functionality, vailability or convenience?

- A. Spyware
- B. Shareware
- C. Freeware
- D. Adware

Correct Answer: B Explanation

#### **Explanation/Reference:**

Explanation:

Shareware is a term refers to proprietary software that is provided to users without payment on a trial basis and is often limited by any combination of functionality, vailability or convenience. Answer option A is incorrect. Spyware is a program that takes partial control over a user's computer without user's permission. Spyware programs can collect various types of personal information, such as Internet surfing habits, and Web sites that the user has visited. Spyware programs can also interfere with the control of a user's computer, such as installing additional software, redirecting Web browser activities, accessing Web sites blindly, etc.

Answer option C is incorrect. Freeware is term for computer software that is available for use at no cost or for an optional fee. Answer option D is incorrect. Adware is software that automatically downloads and display advertisements in the Web browser without user permission. When a user visits a site or downloads software, sometimes a hidden adware software is also downloaded to display advertisement automatically. This can be quite irritating to user. Some adware can also be spyware. References:

#### **QUESTION 79**

Which of the following buses has a maximum data transfer rate of 2400 Mbps?

A. FireWire 800

B. eSATA

C. USB 1.1

D. USB 2.0

Correct Answer: B Explanation

## Explanation/Reference:

Explanation:

External Serial Advanced Technology Attachment (eSATA) is an external Interface and provides hot swappable hard disk drive solution. It is an external interface for Serial Advanced Technology Attachment (SATA) technology. It is designed to support hot-plugging. Hence, it allows users to connect a hard disk drive while the computer is running. eSATA has data transfer rates three times more than USB 2.0 and FireWire 400. Unlike USB and FireWire interfaces, eSATA requires its own power connector. eSATA supports a maximum data cable length of two meters. It has a maximum data transfer rate of 2400 Mbps. Answer option A is incorrect. FireWire 800 bus has a maximum data transfer rate of 786.432 Mbps. Answer options D and C are incorrect. Universal Serial Bus (USB) is a high speed bus standard developed by Compaq, IBM, DEC, Intel, Microsoft, NEC, and Northern Telecom. It provides the Plug and Play capability of Windows to external hardware devices. USB supports hot plugging, which means that a USB device can be installed or removed while the computer is running. A single USB port can be used to connect up to 127 peripheral devices, such as CD-ROM drives, tape drives, keyboards, scanners etc. USB 1.1 has a maximum data transfer rate of 12 Mbps and USB 2.0 has a maximum data transfer rate of 480 Mbps.

References:

## **QUESTION 80**

Which of the following IPv6 address types is a single address that can be assigned to multiple interfaces?

- A. Unicast
- B. Multicast
- C. Loopback
- D. Anycast

**Correct Answer**: D **Explanation** 

## Explanation/Reference:

Explanation:

An IPv6 anycast address is a single address that can be assigned to multiple interfaces. For example, an IPv6 address is assigned to a multi-homed computer. A packet sent to an anycast address is delivered to the first available interface of a device. An anycast address is used to provide loadbalancing and automatic failover. Currently, anycast addresses are used only as destination addresses and can be assigned only to routers.

Answer option A is incorrect. A unicast address identifies a single interface within the scope of the type of unicast address.

Answer option B is incorrect. A multicast address identifies multiple interfaces. Answer option C is incorrect. The loopback address is used to test your network interface. References:

## **QUESTION 81**

Which of the following can be installed in an AGP slot?

- A. Video card
- B. RAM
- C. Microprocessor
- D. Modem card

Correct Answer: A Explanation

## **Explanation/Reference:**

Explanation:

An AGP slot is used to install a video card.

What is AGP (Accelerated Graphics Port)?

AGP is a high speed 32-bit bus designed for high performance graphics and video support. It allows a video card to have direct access to a computer's RAM, which enables fast video performance. AGP provides a bandwidth of up to 2,133 MB/second.

Answer option C is incorrect. An AGP slot cannot be used to install a microprocessor. Different types of microprocessors use different types of sockets and slots such as Socket 7, Slot A, etc. Answer option B is incorrect. An AGP slot cannot be used to install RAM. The motherboard has a separate slot for RAM. Answer option D is incorrect. Modem card is generally installed in a PCI slot. References:

## **QUESTION 82**

At what voltage does a USB host supply power to the USB bus?

- A. 15 volts
- B. 5 volts
- C. 50 volts
- D. 3 volts

Correct Answer: B Explanation

#### **Explanation/Reference:**

Explanation:

A USB host supplies power to the USB bus at 5 volts. The USB light is a device that uses power from the bus to power small LEDs. USB lights are generally used for lighting keyboards at night. Most of the USB devices that require more power to operate have separate power outlets.

Universal Serial Bus (USB) is a high speed bus standard developed by Compaq, IBM, DEC, Intel, Microsoft, NEC, and Northern Telecom. It provides the Plug and Play capability of Windows to external hardware devices. USB supports hot plugging, which means that a USB device can be installed or

removed while the computer is running. A single USB port can be used to connect up to 127 peripheral devices, such as CD-ROM drives, tape drives, keyboards, scanners etc. USB 1.1 has a maximum data transfer rate of 12 Mbps, whereas USB 2.0 has a maximum data transfer rate of 480 Mbps. USB 2.0 is fully backward compatible with USB 1.1.

#### **QUESTION 83**

Which of the following enables third-party developers to create capabilities to extend an application?

- A. Plug-in
- B. Virtual machine
- C. Hotfix
- D. JavaScript

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

Plug-in enables third-party developers to create capabilities to extend an application. A plug-in is a computer program that is used with host applications such as Web browsers, e-mail clients, etc. It is created to provide certain specific functions. Plug-ins are separate from a host application. However, they are dependent on the services provided by the host application and do not usually work by themselves. Answer option D is incorrect. JavaScript is a simple, light weight, and dynamic World Wide Web (WWW) scripting language developed by Netscape Communications. The syntax of JavaScript resembles that of C ++. JavaScript facilitates integration of HTML documents, Web components, and multimedia plug-ins. It also aids in the development of server-side Web applications. Answer option C is incorrect. Hotfix is a collection of files used by Microsoft for software updates that are released between major service pack releases. A hotfix is about a problem, occurring under specific circumstances, which cannot wait to be fixed till the next service pack release. Hotfixes are generally related to security problems. Hence, it is essential to fix these problems as soon as possible. Answer option B is incorrect. A virtual machine (VM) is a software implementation of a computer (machine) that executes programs like a real machine. Virtual machines are separated into two major categories, based on their use and degree of correspondence to any real machine. A system virtual machine provides a complete system platform which supports the execution of a complete operating system. In contrast, a process virtual machine is designed to run a single program, which means that it supports a single process. An essential characteristic of a virtual machine is that the software running inside is limited to the resources and abstractions provided by the virtual machine. Multiple virtual machines with different operating system can co-exist on the same computer.

#### **QUESTION 84**

Which of the following statements about multi-or authentication is true?

- A. It uses a Key Distribution Center (KDC).
- B. It protects a computer from malicious software such as worms.
- C. It involves two or more methods as part of the authentication process.
- D. It is a process in which a client process and a server are required to prove their identities to each other before performing any application function.

**Correct Answer:** C **Explanation** 

#### **Explanation/Reference:**

Explanation:

Multi-or authentication involves a combination of multiple methods of authentication. For example, an authentication method that uses smart cards as well as usernames and passwords can be referred to as multi-or authentication. Answer option D is incorrect. Mutual authentication is a process in which a client process and server are required to prove their identities to each other before performing any application function. The client and server identities can be verified through a trusted third party and use shared secrets as in the case of Kerberos v5. The MS-CHAP v2 and EAPTLS authentication methods support mutual authentication. Answer option A is incorrect. Kerberos authentication uses a Key Distribution

Center (KDC). Answer option B is incorrect. The multi-or authentication method cannot protect a computer from malicious software such as worms.

What is a worm?

A worm is a software program that uses computer networks and security holes to replicate itself from one computer to another. It usually performs malicious actions, such as using the resources of computers as well as shutting down computers.

#### **QUESTION 85**

What is the difference between the USB 2.0 and IEEE 1394 bus standards?

- A. IEEE 1394 is faster than USB 2.0.
- B. IEEE 1394 supports hot swapping.
- C. IEEE 1394 is slower than USB 2.0.
- D. USB 2.0 supports Plug and Play feature.

**Correct Answer:** C **Explanation** 

## **Explanation/Reference:**

Explanation:

What is USB?

IEEE is a standard that defines the specifications for high speed serial bus. IEEE 1394 is also known as Firewire. Like USB, IEEE 1394 also supports hot swapping and Plug and Play feature. However, an IEEE 1394 bus runs at a speed of 400 Mbps, which is slower than that of a USB 2.0 bus. The IEEE 1394 standard defines two types of connectors, 4-pin and 6-pin. 6-pin connectors are commonly used on PC adapters. 4-pin connectors are used on Macintosh systems.

Universal Serial Bus (USB) is a high speed bus standard developed by Compaq, IBM, DEC, Intel, Microsoft, NEC, and Northern Telecom. It provides the Plug and Play capability of Windows to external hardware devices. USB supports hot plugging, which means that a USB device can be installed or removed while the computer is running. A single USB port can be used to connect up to 127 peripheral devices, such as CD-ROM drives, tape drives, keyboards, scanners etc. USB 1.1 has a maximum data transfer rate of 12 Mbps, whereas USB 2.0 has a maximum data transfer rate of 480 Mbps. USB 2.0 is fully backward compatible with USB 1.1.

## **QUESTION 86**

Which of the following devices provides input by analyzing printed text, handwriting, or an object?

- A. Webcam
- B. Image scanner
- C. Packet analyzer
- D. BD-ROM Drive

Correct Answer: B Explanation

#### **Explanation/Reference:**

Explanation:

Image scanner is a device that provides input by analyzing images, printed text, handwriting, or an object. Answer option C is incorrect. The packet analyzer is a device that can intercept and log traffic passing over a digital network or part of a network. Packet analyzer is also known as network analyzer. Answer option A is incorrect. Webcam is a used to provide visual input that can be easily transferred over the internet. Answer option D is incorrect. BD-ROM Drive is device used for reading data from a Blu-ray disc. References:

#### **QUESTION 87**

Which of the following substances are restricted under Restriction of Hazardous Substances (RoHS)? Each correct Answer represents a complete solution. Choose all that apply.

A. Mercury (Hg)

- B. Lead (Pb)
- C. Iron (Fe)
- D. Cadmium (Cd)

Correct Answer: ABD

**Explanation** 

#### **Explanation/Reference:**

Explanation:

The following substances are restricted under Restriction of Hazardous Substances (RoHS):

Lead (Pb) Mercury (Hg) Cadmium (Cd)

Hexavalent chromium (CrVI)
Polybrominated biphenyls (PBB)

Polybrominated diphenyl ethers (PBDE)

Answer option C is incorrect. Iron (Fe) is not restricted under RoHS.

References:

#### **QUESTION 88**

Which of the following bus interfaces are used by the video capture cards? Each correct Answer represents a complete solution. Choose two.

- A. VESA
- B. AGP
- C. PCle
- D. EISA

Correct Answer: BC

**Explanation** 

## **Explanation/Reference:**

Explanation:

Answer

A video capture card is a computer component that allows television signals to be received by a computer. It also allows television programs to be recorded onto a hard disk. Most TV tuner cards also function as video capture cards. Video capture cards are a class of video capture devices designed to plug directly into expansion slots in personal computers and servers. These cards comply with one of the popular host bus standards including PCI, newer PCI Express (PCIe), or AGP bus interfaces. What is PCI Express (PCIe)?

PCI Express (PCIe), also known as 3rd Generation I/O (3GIO), is a type of computer bus. It is a new I/O bus technology that has more bandwidth than PCI and AGP slots. It uses two low-voltage differential pairs, at 2.5Gb/s in each direction. It is designed to replace PCI and AGP expansion slots. The bus is available in several different bus widths: x1, x2, x4, x8, x12, x16, and x32. PCIe is able to transfer data in both directions at a time. PCIe hardware will work on operating systems that support PCI.

What is AGP (Accelerated Graphics Port)?

AGP is a high speed 32-bit bus designed for high performance graphics and video support. It allows a video card to have direct access to a computer's RAM, which enables fast video performance. AGP provides a bandwidth of up to 2,133 MB/second.

Answer options D and A are incorrect. These are the old bus interfaces and not used by the video capture cards.

What is an ISA bus?

Industry Standard Architecture (ISA) is an 8-bit expansion bus that provides an interface from devices on expansion cards to the computer's internal bus. A later version of ISA bus comes with a 16-bit expansion slot.

References:

#### **QUESTION 89**

Which of the following methods is based on the user's roles and responsibilities?

- A. Mandatory access control
- B. System access control
- C. Role-based access control
- D. Discretionary access control

**Correct Answer:** C **Explanation** 

## **Explanation/Reference:**

Explanation:

Role-based access control method is based on the user's roles and responsibilities. Role-based access control (RBAC) is an access control model. In this model, a user can access resources according to his role in the organization. For example, a backup administrator is responsible for taking backups of important data. Therefore, he is only authorized to access this data for backing it up. However, sometimes users with different roles need to access the same resources. This situation can also be handled using the RBAC model. Answer option D is incorrect. Discretionary access control (DAC) is an access policy determined by the owner of an object. The owner decides who should be allowed to access the object and what privileges they should have.

Answer option A is incorrect. Mandatory access control uses security lablel system. Answer option B is incorrect. There is no access control method such as System access control. References:

#### **QUESTION 90**

Mark has purchased a new working USB webcam. He connects the webcam to a USB port on his computer and finds that the computer does not detect it. He connects other working USB devices to the port and discovers that the USB port is not functioning. What should Mark do first to resolve the issue?

- A. Verify that the USB functionality is enabled in the BIOS.
- B. Purchase another model of the USB webcam.
- C. Change the computers motherboard.
- D. Replace the USB port wires with a new one.

**Correct Answer:** A **Explanation** 

## **Explanation/Reference:**

Explanation:

In order to resolve the issue, Mark should first verify that the USB functionality is enabled in the BIOS on the motherboard. The BIOS has an option for enabling and disabling the USB functionality. If this functionality is disabled from the BIOS, the USB ports on the computer will not work. Universal Serial Bus (USB) is a high speed bus standard developed by Compaq, IBM, DEC, Intel, Microsoft, NEC, and Northern Telecom. It provides the Plug and Play capability of Windows to external hardware devices. USB supports hot plugging, which means that a USB device can be installed or removed while the computer is running. A single USB port can be used to connect up to 127 peripheral devices, such as CDROM drives, tape drives, keyboards, scanners etc. USB 1.1 has a maximum data transfer rate of 12 Mbps, whereas USB 2.0 has a maximum data transfer rate of 480 Mbps. USB 2.0 is fully backward compatible with USB 1.1. Answer option C is incorrect. There is no need to change the motherboard, as the problem is most probably due to the BIOS setting for USB functionality. Answer option B is incorrect. Purchasing another model of the USB webcam will not help resolve the issue, because the problem is not with the webcam. Answer option D is incorrect. It is possible that the USB port wires are bad. However, this rarely happens. Reference: TechNet, Contents: "Chapter 9 - Managing Devices"

#### **QUESTION 91**

Which of the following defines power management for various types of computers and peripherals?

- A. PCIe
- B. HDMI
- C. ACPI

D. PCI

**Correct Answer:** C **Explanation** 

## Explanation/Reference:

Explanation:

Answer option C is correct.

The Advanced Configuration and Power Interface (ACPI) is a power-management specification developed by Intel, Microsoft, and Toshiba. It enables an operating system to control the amount of power supplied to each device attached to a computer by turning off peripheral devices when they are not in use. It defines power management on a wide range of mobile, desktop, and server computers and peripherals. It also enables manuurers to produce computers that automatically power up as soon as a user touches the keyboard. Answer option B is incorrect. HDMI stands for High-Definition Multimedia Interface. It is a standard, uncompressed, and all-digital audio/video interface. HDMI is capable of delivering the highest quality digital video and multi-channel digital audio on a single cable. It provides an interface between any audio/video sources, such as a DVD player or a computer and a digital television (DTV) or video monitor. HDMI transmits all ATSC HDTV standards and supports 8-channel digital audio, with extra bandwidth to accommodate future enhancements. HDMI has two types of connectors: Type A and Type B. Type A and Type B connectors use 19 pins and 29 pins, respectively. The Type B connector is designed for very highresolution displays that are expected in near future. Answer option D is incorrect. Peripheral Component Interconnect (PCI) is a high-performance, 32-bit or 64-bit bus designed to be used with devices that have high bandwidth requirements, such as the display subsystem.

Answer option A is incorrect. PCI Express (PCIe), also known as 3rd Generation I/O (3GIO), is a type of computer bus. It is a new I/O bus technology that has more bandwidth than PCI and AGP slots. It uses two low-voltage differential pairs, at 2.5Gb/s in each direction. It is designed to replace PCI and AGP expansion slots. The bus is available in several different bus widths: x1, x2, x4, x8, x12, x16, and x32. PCIe is able to transfer data in both directions at a time. PCIe hardware will work on operating systems that support PCI.

References:

#### **QUESTION 92**

You want to add broadband wireless access to a laptop. What type of card will you use to accomplish this?

- A. Network interface card
- B. PCI card
- C. Aircards
- D. MCA card

**Correct Answer:** C **Explanation** 

## Explanation/Reference:

Explanation:

Aircards are used to provide wireless broadband access. They are often PCI Express type cards. Answer option A is incorrect. A NIC would help in accessing the local network, but not broadband wireless. What is a network interface card (NIC)?

A network interface card (NIC) is a computer circuit board or card installed in a computer. It provides physical connection between a computer and the network. Network interface cards provide a dedicated, full-time connection to a network.

Answer option D is incorrect. MCA is a very outdated expansion type for PC's. Answer option B is incorrect. PC's use PCI, laptops use PCI mini express. References:

#### **QUESTION 93**

You are responsible for the wireless network at your company. You have been asked to create SSID's for wireless routers. What are the limits on an SSID? Each correct Answer represents a complete solution. Choose two.

- A. It is not case sensitive.
- B. It must be 32 or fewer characters long.

- C. It can only contain letters, not numbers.
- D. It is case sensitive.
- E. It must be 64 or viewer characters long.

Correct Answer: BD

**Explanation** 

#### **Explanation/Reference:**

Explanation:

Answer An SSID can be a maximum of 32 characters long and is case sensitive. What is SSID? SSID stands for Service Set Identifier. It is used to identify a wireless network. SSIDs are case sensitive text strings and have a maximum length of 32 characters. All wireless devices on a wireless network must have the same SSID in order to communicate with each other. The SSID on computers and the devices in WLAN can be set manually and automatically. Configuring the same SSID as that of the other Wireless Access Points (WAPs) of other networks will create a conflict.

A network administrator often uses a public SSID that is set on the access point. The access point broadcasts SSID to all wireless devices within its range. Some newer wireless access points have the ability to disable the automatic SSID broadcast feature in order to improve network security. Answer options E and A are correct. The max length is 32 characters, not 64 and SSID is case sensitive. Answer option is incorrect. An SSID can contain numbers and letters.

References:

#### **QUESTION 94**

Which of the following devices allows television signals to be received by a computer?

- A. SD Card
- B. Video Capture card
- C. ExpressCard
- D. Smart card

Correct Answer: B Explanation

## Explanation/Reference:

Explanation:

A video capture card is a computer component that allows television signals to be received by a computer. It also allows television programs to be recorded onto a hard disk. Most TV tuner cards also function as video capture cards. Video capture cards are a class of video capture devices designed to plug directly into expansion slots in personal computers and servers. These cards comply with one of the popular host bus standards including PCI, newer PCI Express (PCIe), or AGP bus interfaces. Answer option A is incorrect. Secure Digital (SD) card is a non-volatile memory card format used in portable devices such as mobile phones, digital cameras, and handheld computers. SD cards are based on the older MultiMediaCard (MMC) format, but they are a little thicker than MMC cards. Generally an SD card offers a write-protect switch on its side. SD cards generally measure 32 mm x 24 mm x 2.1 mm, but they can be as thin as 1.4 mm. The devices that have SD card slots can use the thinner MMC cards, but the standard SD cards will not fit into the thinner MMC slots. Some SD cards are also available with a USB connector. SD card readers allow SD cards to be accessed via many connectivity ports such as USB, FireWire, and the common parallel port. Answer option C is incorrect. ExpressCard, a new standard introduced by PCMCIA, is a thinner, faster, and lighter modular expansion for desktops and laptops. Users can add memory, wired or wireless communication cards, and security devices by inserting these modules into their computers. ExpressCard slots are designed to accommodate modules that use either Universal Serial Bus (USB) 2.0 or the PCI Express standard. ExpressCard modules are available in two sizes, i.e., 34 mm wide (ExpressCard/34) and 54 mm wide (ExpressCard/54). Both modules are 75 mm long and 5 mm high. An ExpressCard/34 module can be inserted in either a 54 mm slot or a 34 mm slot, but an ExpressCard/54 requires a Universal (54 mm) slot. However, an extender can be used with ExpressCard/34 slot to connect the ExpressCard/54 module from outside of the computer. Both the modules are identical in performance. They take full advantage of the features of the PCI Express or USB 2.0 interfaces. The only difference between them is that the ExpressCard/54 form-or, due to its larger surface area, allows for greater thermal dissipation than does an ExpressCard/34. As the performance does not vary with module size, module developers usually prefer to fit their applications into the smaller ExpressCard/34 form or. But some applications, such as SmartCard readers, and CompactFlash readers, require the extra width of an

ExpressCard/54 module. Answer option D is incorrect. A smart card is a credit card-sized device used to securely store personal information such as certificates, public and private keys, passwords etc. It is used in conjunction with a PIN number to authenticate users. In Windows 2000/2003, smart cards are used to enable certificate- based authentication. To use smart cards, Extensible Authentication Protocol (EAP) must be configured in Windows 2000/2003. References:

#### **QUESTION 95**

Which of the following term is used for any small mobile hand-held device that provides computing, information storage and retrieval capabilities for business or personal use?

- A. Solid-state drive
- B. Personal Digital Assistant
- C. Pen drive
- D. SocketShield

Correct Answer: B Explanation

## **Explanation/Reference:**

Explanation:

Personal digital assistant (PDA) is a term for any small mobile hand-held device that provides computing and information storage and retrieval capabilities for business or personal use such as keeping schedule calendars and address book information. Most PDAs have a small keyboard. Some PDAs have an electronically sensitive pad that accepts handwriting. Answer option D is incorrect. SocketShield provides a protection shield to a computer system against malware, viruses, spyware, and various types of keyloggers. SocketShield provides protection at the following two levels: 1.Blocking: In this level, SocketShield uses a list of IP addresses that are known as purveyor of exploits. All http requests for any page in these domains are simply blocked. 2.Shielding: In this level, SocketShield blocks all the current and past IP addresses that are the cause of unauthorized access. Answer option A is incorrect. A solid-state drive (SSD) is a data storage device that uses solid-state memory to store persistent data. An SSD emulates a hard disk drive interface, thus easily replacing it in most applications. It is also known as solid-state hard disk drive. SSDs have no moving parts; hence, they are less fragile and silent than hard disks. As there are no mechanical delays, SSDs usually enjoy low access time and latency. An SSD using SRAM or DRAM (instead of flash memory) is often called a RAM-drive, which should not be confused with a RAM disk.

Answer option C is incorrect. A USB flash drive consists of flash memory data storage device integrated with a USB (Universal Serial Bus) 1.1 or 2.0 interface. References:

#### **QUESTION 96**

You are responsible for assigning equipment in your company. An employee has requested a docking station. Which of the following would NOT be a valid reason for the employee to request a docking station?

- A. A need to connect multiple printers to a PC
- B. A need to easily plug the laptop to a large monitor.
- C. A need for more USB ports on a laptop.
- D. A need for connecting a ps2 keyboard to a laptop.

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

Docking stations are used for laptops not PC's.

What is a docking station?

A docking station is a hardware device that contains slots for expansion cards and storage devices, and ports for peripheral devices such as printers and monitors. It allows laptops to connect to printers, storage devices, and other devices that are not usually available with laptops. A docking station also includes a

network interface card that connects a laptop to the network and enables users to use a full- size keyboard when they are not traveling.

Answer option B is incorrect. This is in one of the more common reasons to obtain a docking station. Answer option D is incorrect. While it is rare for one to want a PS2 keyboard for a laptop there are specific and valid reasons to do so. For example, certain magnetic stripe readers (reading credit cards for example) require a PS2 connection. If one is using a laptop, then a docking station would be necessary. References:

#### **QUESTION 97**

Which of the following processors have 64-bit data bus width? Each correct Answer represents a complete solution. Choose three.

- A. Pentium 4
- B. AMD Athlon
- C. 386SX
- D. AMD K6

Correct Answer: ABD

**Explanation** 

## **Explanation/Reference:**

Explanation:

The following processors have 64-bit data bus width:

AMD K6 Pentium 4 AMD Athlon

#### **QUESTION 98**

You are using infrared devices in your network. You want to improve the quality of connections and achieve better communication between infrared devices. What will you do to achieve this? Each correct answer represents a complete solution. Choose three.

- A. Move the devices closer together.
- B. Keep the devices in line of sight.
- C. Remove any obstruction between the devices.
- D. Keep the devices in different geographic locations.

Correct Answer: ABC

**Explanation** 

## Explanation/Reference:

Explanation:

To improve the quality of your connections, keep the devices in line of sight so that they point directly at each other. Also, move the devices closer together and remove any obstruction between the devices so that the signal transmitted by the devices can reach to the other devices. You can also verify that no other devices are interfering with the connection, because some household devices, like TV remotes, emit infrared signal that can interfere with your connection.

References:

## **QUESTION 99**

Which of the following is a software program that collects email addresses of users and creates a mailing list to send unwanted emails to the users?

- A. Port scanner
- B. Adware
- C. Malware
- D. Spambot

Correct Answer: D

## **Explanation**

## **Explanation/Reference:**

Explanation:

Spambot is a software program that collects email addresses of users and creates a mailing list to sent unwanted emails to the users.

Answer option C is incorrect. The term malware refers to malicious software, which is a broad class of malicious viruses, including spyware. Malware is designed to infiltrate or damage a computer without the consent of the owner.

Answer option A is incorrect. A port scanner is a software tool that is designed to search a network host for open ports. This tool is often used by administrators to check the security of their networks. It is also used by hackers to compromise the network and systems. Answer option B is incorrect. Adware is software that automatically downloads and display advertisements in the Web browser without user permission. When a user visits a site or downloads software, sometimes hidden adware software is also downloaded to display advertisement automatically. This can be quite irritating to user. Some adware can also be spyware. References:

#### **QUESTION 100**

You work as a Network Administrator for McNeil Inc. The company has a Windows-based network. You want to upgrade a client computer from

Windows 98 SE to Windows 2000 Professional. Which of the following steps will you take before the upgrade? Each correct answer represents a part of the solution. Choose two.

- A. Convert FAT partitions to NTFS partitions.
- B. Verify that each component of the computer is in the hardware compatibility list (HCL).
- C. Format the hard disk drive.
- D. Remove the Windows folder from the hard disk.
- E. Verify that the client computer meets the minimum requirements for Windows 2000 Professional.

Correct Answer: BE Explanation

## **Explanation/Reference:**

Explanation:

Before performing the upgrade, you should take the following steps:

Verify that each component of the computer is in the hardware compatibility list (HCL). Verify that the client computer meets the minimum requirements for Windows 2000 Professional. By verifying that each component of the computer is in the HCL, you will ensure that all those components are supported and would be working properly in the upgraded operating system. By verifying that the client computer meets the minimum requirements for the operating system to which the computer is to be upgraded, you will ensure that the upgrade process runs smoothly, and the new operating system is installed without any problem. If the minimum requirements are not met, the new operating system will fail to get installed on the computer. Answer option A is incorrect. As Windows 2000 Professional supports FAT partitions, the conversion of FAT partitions to NTFS partitions is not required.

Answer option C is incorrect. Formatting the hard disk drive will erase all the data in the disk. For the upgrade, formatting of the disk is not required.

Answer option D is incorrect. After removing the Windows folder, the computer will fail to boot. This will not allow you to upgrade the existing operating system to the new one.

#### **QUESTION 101**

What are the differences between the microprocessor of a desktop and that of a laptop? Each correct answer represents a complete solution. Choose two.

- A. A laptop microprocessor consumes less power than a desktop microprocessor does.
- B. A laptop microprocessor has slower processing speed than a desktop microprocessor has.
- C. Unlike laptop microprocessors, a desktop microprocessor has side buses (FSB).
- D. A laptop microprocessor generates less heat than a desktop microprocessor does.

Correct Answer: AD

## **Explanation**

## **Explanation/Reference:**

Explanation:

Following are the differences between desktop and laptop processors:

A laptop microprocessor generates less heat than a desktop microprocessor. A laptop microprocessor consumes less power than a desktop microprocessor. Answer option B is incorrect. The processing speed depends on what model of processor a laptop or desktop has.

Answer option C is incorrect. Both the laptop and desktop microprocessors can have front side buses. It depends on a microprocessor's model.

#### **QUESTION 102**

You have a customer who wants to move files and settings from an old PC to a new one she is buying. What tool do you recommend?

- A. File and Settings Transfer Wizard
- B. Disk Management
- C. Windows Explorer
- D. User State Migration Tool

Correct Answer: A Explanation

#### **Explanation/Reference:**

**Explanation:** 

The files and settings wizard is made specifically for home users to transfer files and settings from an old PC to a new one.

Answer option D is incorrect. The User State Migration Tool is for IT administrators to handle large scale deployments.

FactWhat is User State Migration Tool (USMT)? Hide

User State Migration Tool (USMT) is used to migrate user files and settings during large deployments of Microsoft Windows XP and Microsoft Windows Vista operating systems. It captures desktop, and application settings, as well as user accounts and users' files, and then migrates them to a new Windows installation. It helps administrators to improve and simplify migration process. USMT can be used for both side-by-side and wipe-and-load migrations. USMT component SCANSTATE.EXE is used to collect the files and settings from the source computer and the LOADSTATE.EXE component is used to restore the user state onto the destination computer. Answer option B is incorrect. Disk Management is used for partitioning disks, not transferring files and settings.

FactWhat is Disk Management? Hide

Disk Management is a folder in the Computer Management console used to view the volume status. It displays the currently active volumes on the server. It also displays the active and inactive drives connected to the server. The following are the volume status displayed in the Disk Management folder: Failed: This status occurs when a file system gets damaged or corrupted. It may indicate data loss. The volume can be returned to the healthy status by using the Reactivate Disk command. Failed Redundancy: Volumes with failed redundancy can be accessed, but their performance is slow. Replacing or reactivating the missing disk can resolve this problem. Healthy (At Risk): This status occurs when a dynamic volume experiences I/O error. The I/O error can be caused by bad sectors present on the actual disk. Reactivating or replacing the disk can resolve this problem.

Answer option C is incorrect. Windows Explorer can help you navigate files on a machine, but will not be as useful in transferring files and settings to a new PC. References:

## **QUESTION 103**

Mark has a computer with a CD-ROM drive. He is unable to open the CD-ROM drive tray by pushing the Eject button on the front panel of the drive. What else can he do to open the tray?

- A. Open the tray by holding it through pliers.
- B. Insert a pin into the eject hole on the drive.
- C. Push the Eject button for 2 minutes.
- D. Open the CD-ROM cover.

Correct Answer: B Explanation

#### **Explanation/Reference:**

**Explanation:** 

If Mark is unable to open the CD-ROM drive tray by pushing the Eject button on the front panel, he can open it by inserting a pin into the eject hole on the CD-ROM drive. Answer options A and D are incorrect. These are not the right way to open the tray of a CD-ROM drive.

Answer option C is incorrect. Pushing the Eject button for such a long time will not help accomplish the task.

#### **QUESTION 104**

Which of the following are Internet standard protocols for email retrieval? Each correct answer represents a complete solution. Choose two.

- A. SNMP
- B. POP3
- C. SMTP
- D. IMAP4

Correct Answer: BD

**Explanation** 

## Explanation/Reference:

Explanation:

IMAP4 and POP3 protocols are Internet standard protocols for email retrieval. Internet Message Access Protocol 4 (IMAP4) is an e-mail message retrieval protocol that allows email clients to retrieve e-mail messages from e-mail servers. Post Office Protocol version 3 (POP3) is a protocol used to retrieve e-mails from a mail server. It is designed to work with other applications that provide the ability to send e-mails. POP3 is mostly supported by the commercially available mail servers. It does not support retrieval of encrypted emails.

POP3 uses port 110.

Answer option A is incorrect. Simple Network Management Protocol (SNMP) is a part of the TCP/IP protocol suite, which allows users to manage the network. SNMP is used to keep track of what is being used on the network and how the object is behaving.

Answer option C is incorrect. Simple Mail Transfer Protocol (SMTP) is a protocol for sending e-mail messages between servers. E-mailing systems use this protocol to send mails over the Internet. SMTP works on the application layer of the TCP/IP or OSI reference model. The SMTP client typically initiates a Transmission Control Protocol (TCP) connection to the SMTP server on the well-known port designated for SMTP, port number 25. However, e-mail clients require POP or IMAP to retrieve mails from e-mail servers.

References:

## **QUESTION 105**

Which of the following statements about expansion bus is true?

- A. It connects expansion cards to BIOS.
- B. It connects expansion cards to system bus.
- C. It is a network interconnectivity device that translates different communication protocols and is used to connect dissimilar networks.
- D. It is a cable made of light-conducting glass or plastic fibers.

Correct Answer: B Explanation

## **Explanation/Reference:**

**Explanation:** 

Expansion bus is a collection of wires and protocols used for the expansion of a computer. It connects

expansion cards such as network interface card, video card, etc., to system bus. Expansion cards connect to the expansion bus through the expansion slot. Answer option D is incorrect. Fiber optic cable is made of light-conducting glass or plastic fibers. Answer option C is incorrect. Expansion bus is not a network connectivity device. It does not translate different communication protocols and is not used to connect dissimilar networks.

FactWhat is a gateway? Hide

Gateway is a network interconnectivity device that translates different communication protocols and is used to connect dissimilar network technologies. It provides greater functionality than a router or bridge because a gateway functions both as a translator and a router. Gateways are slower than bridges and routers. Gateway is an application layer device.

References:

#### **QUESTION 106**

Which of the following devices are known as Input/Output devices? Each correct answer represents a complete solution. Choose two.

- A. Printer
- B. Network interface card
- C. Keyboard
- D. Scanner
- E. Floppy disk drive

Correct Answer: BE

**Explanation** 

## **Explanation/Reference:**

Explanation:

The devices that perform both input and output functions are known as Input/Output devices. Floppy disk drives and network interface cards are Input/Output devices. The other I/O devices are hard disk drives and modems.

FactWhat is a network interface card (NIC)? Hide

A network interface card (NIC) is a computer circuit board or card installed in a computer. It provides physical connection between a computer and the network. Network interface cards provide a dedicated, full-time connection to a network.

Answer options D and C are incorrect. Scanners and keyboards are input devices. Answer option A is incorrect. A printer is an output device.

## **QUESTION 107**

Which of the following precautions should be taken to minimize the risk of damage to add-on cards and motherboard? Each correct answer represents a complete solution. Choose three.

- A. Keep water and liquids away from them.
- B. Wear an antistatic wrist strap when handling them.
- C. Always clean them with a water spray gun.
- D. Keep them in antistatic bags.

Correct Answer: ABD

**Explanation** 

## Explanation/Reference:

**Explanation:** 

In order to minimize the risk of damage to add-on cards and motherboard, users should take the following precautions:

Keep them in antistatic bags whenever they are removed from the computer. Antistatic bags protect them from static charges. Keep water and liquids away from electronic circuits, as they might cause short circuits. Wear antistatic wrist strap while handling or repairing a computer. The antistatic wrist strap prevents static electricity from building up.

Users should protect their computers and sensitive components such as RAM from short circuits and static charges, as they can cause critical damage to electronic components. Answer option C is incorrect. Add-

on cards and the motherboard should not be cleaned with a water spray gun. It can destroy them. In order to clean them, compressed air and isopropyl alcohol can be used. References:

#### **QUESTION 108**

Which of the following processor states does not save power?

A. C2

B. C1

C. C3

D. C0

Correct Answer: D

Explanation

## **Explanation/Reference:**

Explanation:

The C0 processor state does not save power. It is an operational state. Answer option B is incorrect. The C1 state is a powered down state, but the processor takes action immediately on request. The C1 state uses less power than C0 state. Answer option A is incorrect. The C2 state is also known as Stop-Clock. It uses less power than C1 state. In this state, the processor takes a little longer time than C1 state to come in action on the request of applications.

Answer option C is incorrect. The C3 state is also known as the sleep mode. In this state, the processor cache is flushed. In this state, the processor takes a few seconds to be available for action.

#### **QUESTION 109**

Which of the following provides only block-based storage and leaves file system concerns on the client side?

- A. Storage area network
- B. Local area network
- C. Network attached storage
- D. Wide area storage

Correct Answer: A Explanation

## Explanation/Reference:

Explanation:

Storage area network (SAN) provides only block-based storage and leaves file system concerns on the client side.

A storage area network (SAN) is an architecture to attach remote computer storage devices (such as disk arrays, tape libraries, and optical jukeboxes) to servers in such a way that the devices appear as locally attached to the operating system. SANs are generally used in large enterprises. Answer option C is incorrect. Network attached storage provides both storage and file system. Answer option B is incorrect. Local Area Network (LAN) is a network with high data transfer rate. In this type of network, the computers are located in a campus and are connected to each other. Answer option D is incorrect. There is no data storage type such as Wide area storage.

References:

#### **QUESTION 110**

Which of the following are the advantages of Standby mode over Hibernate mode? Each correct answer represents a complete solution. Choose two.

- A. Shorter wake-up period
- B. Lower power consumption
- C. Longer wake-up period
- D. No consumption of hard disk space

Correct Answer: AD Explanation

#### **Explanation/Reference:**

Explanation:

Standby mode has a shorter wake-up period than Hibernate mode. Unlike Hibernate mode, in Standby mode, the contents of the computer's main memory are not saved to the hard disk, and the operating system need not read contents from the hard disk each time the computer is restarted. Therefore, Standby mode takes lesser amount of time to wake-up as compared to Hibernate mode. Moreover, a computer in Standby mode does not consume any hard disk space.

FactWhat is hibernate mode? Hide

Hibernate mode is a power saving feature for computers. In hibernate mode, the current state of a computer is saved to the hard disk, and the computer shuts down. A user will have to power on the computer to restore the previous settings. When a computer resumes from hibernate mode, it reads the saved settings from the disk and restores the system state as it was before it entered hibernate mode. By default, hibernate mode is disabled. If a computer is not ACPI-enabled or APM-enabled, users will have to enter hibernate mode manually. Users cannot set the computer to automatically hibernate after a certain time. With ACPI-enabled and APM-enabled computers, users are able to set hibernate mode automatically.

Answer option B is incorrect. Since Standby mode maintains the current state of the computer in the computer's RAM, it consumes a small amount of power, whereas Hibernate mode writes contents to the hard disk and shuts down the computer completely. As a result, a computer in Hibernate mode requires no power to maintain the current state.

References:

#### **QUESTION 111**

Which of the following devices has an acoustic sensor that provides input by converting sound into electrical signals?

- A. Microphone
- B. Trackball
- C. Webcam
- D. Sound card

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

Microphone has an acoustic sensor that provides input by converting sound into electrical signals. Answer option C is incorrect. Webcam is a low resolution video camera used to provide visual input that can be easily transferred over the internet.

Answer option B is incorrect. Trackball is a pointing device consisting of an exposed protruding ball housed in a socket that detects rotation about two axes. Answer option D is incorrect. A sound card is a computer expansion card that facilitates the input and output of audio signals to and from a computer under control of computer programs.

References:

## **QUESTION 112**

What is the difference between SRAM and DRAM? Each correct answer represents a complete solution. Choose two.

- A. DRAM is used in Cache memory and SRAM is used in Video memory.
- B. SRAM has in-built switches and does not have to be refreshed but DRAM needs to be refreshed.
- C. SRAM is faster than DRAM.
- D. DRAM is faster than SRAM.

Correct Answer: BC

**Explanation** 

## Explanation/Reference:

Explanation:

Static Random Access Memory (SRAM) has in-built switches that do not have to be refreshed. Dynamic Random Access Memory (DRAM) uses capacitors instead of switches that need constant refresh signals to keep information in the memory. DRAM requires more power than that of SRAM, therefore, SRAM is mostly used in desktop computers. With an access time of 15 to 30 nanoseconds, SRAM is faster than DRAM that has an access time of 80 nanoseconds or more.

#### **QUESTION 113**

You have just taken over network support for a small company. They are currently using MAC filtering to secure their wireless network. Is this adequate or not and why or why not?

- A. Yes, in fact MAC filtering is the most security you can have.
- B. No, you should have WEP or WPA encryption as well.
- C. Yes, MAC filtering includes encryption.
- D. No, MAC filtering is not secure at all.

Correct Answer: B Explanation

## **Explanation/Reference:**

Explanation:

MAC filtering allows the possibility of someone using a packet sniffer and obtaining the MAC addresses of the computers that connect to your network. A skilled hacker can then emulate or fake those MAC addresses and gain access to your network. You need to also implement some form of encryption. FactWhat is WEP? Hide

Wired Equivalent Privacy (WEP) is a security protocol for wireless local area networks (WLANs). It has two components, authentication and encryption. It provides security, which is equivalent to wired networks, for wireless networks. WEP encrypts data on a wireless network by using a fixed secret key. WEP incorporates a checksum in each frame to provide protection against the attacks that attempt to reveal the key stream.

FactWhat is WPA? Hide

WPA stands for Wi-Fi Protected Access. It is a wireless security standard. It provides better security than WEP (Wired Equivalent Protection). Windows Vista supports both WPA-PSK and WPA-EAP. Each of these is described as follows:

WPA-PSK: PSK stands for Preshared key. This standard is meant for home environment. WPA-PSK requires a user to enter an 8-character to 63-character passphrase into a wireless client. The WPA converts the passphrase into a 256-bit key.

WPA-EAP: EAP stands for Extensible Authentication Protocol. This standard relies on a back-end server that runs Remote Authentication Dial-In User Service for user authentication. Note: Windows Vista supports a user to use a smart card to connect to a WPA-EAP protected network. Answer option A is incorrect. MAC filtering by itself is not very secure. Answer option C is incorrect. MAC filtering does not include encryption. Answer option D is incorrect. MAC filtering does provide a certain measure of security, but by itself is usually not sufficient.

References:

## **QUESTION 114**

You work as a Network Administrator for NetTech Inc. The company has a wireless local area network (WLAN). You want to prevent your wireless access point from being accessed by intruders. What will you do to accomplish the task?

- A. Implement WEP.
- B. Implement EAP.
- C. Implement SSL.
- D. Implement auditing.

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

In order to prevent your wireless access point from being accessed by intruders, you will have to implement Wired Equivalent Privacy (WEP) on the network. WEP is a security protocol for wireless local area networks (WLANs). It is the most commonly and widely accepted security standard. Almost all the available operating systems, wireless access points, wireless bridges support this security standard. It has two components, authentication and encryption. It provides security, which is equivalent to wired networks, for wireless networks. WEP encrypts data on a wireless network by using a fixed secret key. WEP incorporates a checksum in each frame to provide protection against the attacks that attempt to reveal the key stream.

Answer option C is incorrect. Secure Sockets Layer (SSL) is a protocol used to transmit private documents via the Internet. SSL uses a combination of public key and symmetric encryption to provide communication privacy, authentication, and message integrity. Using the SSL protocol, clients and servers can communicate in a way that prevents eavesdropping and tampering of data on the Internet. Many Web sites use the SSL protocol to obtain confidential user information, such as credit card numbers. By convention, URLs that require an SSL connection start with https: instead of http:. By default, SSL uses port 443 for secured communication.

Answer option D is incorrect. Auditing is used to track user accounts for file and object access, logon attempts, system shutdown etc. This enhances the security of the network. Before enabling auditing, the type of event to be audited should be specified in the Audit Policy in User Manager for Domains. Answer option B is incorrect. Extensible Authentication Protocol (EAP) is an authentication protocol that provides support for a wide range of authentication methods, such as smart cards, certificates, one- time passwords, public keys, etc. It is an extension to Point-to-Point Protocol (PPP), which allows the application of arbitrary authentication mechanisms for the validation of a PPP connection. References:

#### **QUESTION 115**

Which of the following switches of the ATTRIB command clears the attributes of a file?

A. -

B. A

C. +

D. R

Correct Answer: A Explanation

## **Explanation/Reference:**

Explanation:

The ATTRIB command uses the - switch to clear the attributes of a file. For example, in order to clear the Hidden attribute of a file, a user will have to type the following command on the command prompt: ATTRIB -H <filename>

Where H is used for the Hidden attribute.

Answer option C is incorrect. The ATTRIB command uses the + switch to set the attributes of a file. Answer option D is incorrect. The ATTRIB command uses the R switch for the Read-only attribute. Answer option B is incorrect. The ATTRIB command uses the A switch for the Archive attribute. References:

## **QUESTION 116**

In what order are SCSI ID numbers prioritized? Each correct answer represents a complete solution. Choose all that apply.

A. 1 = lowest

B. 7 = highest

C. 8 = lowest

D. 7 = lowest

E. 8 = highest

F. 1 = highest

Correct Answer: BC

**Explanation** 

## **Explanation/Reference:**

Explanation:

SCSI ID 8 provides lowest priority while SCSI ID 7 provides highest priority to a device. SCSI IDs determine device priority on a SCSI bus. Narrow SCSI buses that support eight devices use IDs 0 to 7, while wide SCSI buses that support 16 devices use IDs 0 to 15. Higher ID numbers have higher priority. SCSI IDs are split into two groups, with numbers 0 to 7 having priority over 8 to 15. Therefore, SCSI ID 7 has the highest priority. The ID priority order on a SCSI bus is as follows: 7, 6, 5, 4, 3, 2, 1, 0, 15, 14, 13, 12, 11, 10, 9, 8.

The SCSI ID assigned to a device on a SCSI bus can be important to the performance of a computer because IDs dictate the priority in which a device gets access to the bus.

#### **QUESTION 117**

Which of the following types of connectors is used by 1000BASE-TX gigabit ethernet?

- A. RJ-45
- B. RJ-59
- C. BNC
- D. LC

Correct Answer: A **Explanation** 

## **Explanation/Reference:**

Explanation:

1000BASE-TX is an IEEE specification for Ethernet. This is commonly known as Gigabit Ethernet. It supports the maximum speed of 1000Mbps and the maximum cable length of 100 meters. 1000BASE-TX uses Category 5 UTP cables and RJ-45 connectors. RJ-45 is a type of connector similar to an RJ-11 telephone connector, but it is larger in size because it has eight conductors.



Answer gotion C is incorrect, BNC stands for British Naval Connector, It is a connector used to connect 10Base2 cable network to Network Interface Card (NIC).



Answer option D is incorrect. The LC connector was developed to meet the need for small and easier-to-use fiber optic connectors. The LC connector reduces space required on panels by 50%.



Answer option B is incorrect. RJ-59 connector is used in cable TV's coaxial cable.

#### References:

#### **QUESTION 118**

Which of the following virus is a script that attaches itself to a file or template?

- A. E-mail virus
- B. Boot sector
- C. Macro virus
- D. Trojan horse

**Correct Answer:** C **Explanation** 

## Explanation/Reference:

Explanation:

A macro virus is a macro or script that attaches itself to a file or template. When the file is loaded, the instructions of the macro or script are executed.

Answer option B is incorrect. A boot-sector virus infects the boot record on hard disks and floppy disks, which is used to start the computer. When the computer is turned on or restarted, the virus is automatically executed. An infected boot disk may stop the computer from starting up. Answer option A is incorrect. An e-mail virus moves around in e-mail messages, and usually replicates itself by automatically mailing itself to many people in the their e-mail address book. Answer option D is incorrect. A Trojan horse program can contain viruses, but it is not a virus itself. References:

#### **QUESTION 119**

Which of the following are types of Single Inline Memory Modules (SIMMs)? Each correct answer represents a complete solution. Choose all that apply.

- A. 184-pin
- B. 72-pin
- C. 168-pin
- D. 30-pin

Correct Answer: BD

**Explanation** 

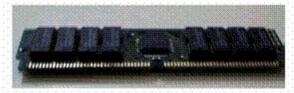
## Explanation/Reference:

Explanation:

SIMMs are available in two types, 30-pin and 72-pin. SIMM is a memory module with memory chips on one side of the circuit board. SIMM is primarily used for computer memory.



72-pin SIMM:



Answer option C is incorrect, Dual In-line Memory Module (DIMM) is a type of memory module that comes with 168 and 184 pins. A DIMM slot is larger than a SIMM slot. DIMM with 168 pins has two notches on its base. 184-pin DIMMs are for DDR SDRAM modules which are available in Pentium III and Pentium 4 and Athlon systems. 184-pin DIMMs are available in PC2700, PC2700, PC3200 and PC3500 and faster. The number of chips on a 184-pin DIMM may vary, but they have 92 pins on both side of DIMM for a total of 184. 184-pin DIMMs are 5.375" long and 1,375" high, and the heights may vary. DIMMs have a small notch on the bottom of the module.

Answer option A is incorrect, Rambus Inline Memory Module (RIMM) has 184 pins.

## 30-pin SIMM:

#### **QUESTION 120**

Which of the following is a block of data stored on a client computer by a web browser?

- A. cookie
- B. Plug-in
- C. Add-in
- D. Keyword

**Correct Answer:** A **Explanation** 

## **Explanation/Reference:**

Explanation:

A cookie is a block of data stored on a client computer by a Web server. If no expiration date is set for a cookie, the cookie expires when the browser is closed. If the expiration date is set for a future date, the cookie is stored on the client's disk after the session ends, and if set for a past date, the cookie is deleted. Answer option D is incorrect. Keyword is an important term used to search Web pages on a particular topic. For example, if a user enters a keyword Networking in a search engine form, all Web pages containing the term Networking will be displayed.

Answer options B and C are incorrect. Plug-in is also known as add-in. A plug-in is a computer program that is used with host applications such as Web browsers, e-mail clients, etc. It is created to provide certain specific functions. Plug-ins is separate from a host application. However, they are dependent on the services provided by the host application and do not usually work by themselves. References:

#### **QUESTION 121**

Mark works as a Network Administrator for Net Tech Inc. The company has a Windows 2000 domain-based network. A user working on a Windows 2000 Professional client computer reports that he is unable to access some files on the hard disk. However, he is able to successfully log on and access other files. What should Mark do to resolve the issue?

- A. Check the hard disk drive using the SCANDISK utility.
- B. Enable the user account on the computer.
- C. Instruct the user to log off and log on again.
- D. Check the file permissions on the hard disk drive.

**Correct Answer:** D **Explanation** 

## Explanation/Reference:

Explanation:

In order to resolve the issue, Mark should check the file permissions for the user on the hard disk drive. According to the question, the user is able to access other files on the hard disk. Hence, the most likely cause of the issue is that the user does not have sufficient privileges on those files. Answer option C is incorrect. Logging off and then logging on will not help resolve the issue. Answer option A is incorrect. Checking the hard disk drive using the SCANDISK utility will not help, as the issue is related to permissions.

Answer option B is incorrect. According to the question, the user is able to successfully log on to the computer. This indicates that his user account is already enabled. Hence, there is no need to enable it. References:

## **QUESTION 122**

You are selecting memory for a new computer. You need to use DDR2 memory. However, the catalog from which you are ordering has incomplete information. Which of the following types of RAM does DDR2 come under?

A. DRAM

- B. RDRAM
- C. SDRAM
- D. SIMM

**Correct Answer:** C **Explanation** 

#### **Explanation/Reference:**

Explanation:

The types of synchronous Data RAM are DDR, DDR2, and DDR3 RAM. Answer option A is incorrect. Dynamic Random Access Memory is not the same as DDR. Answer option B is incorrect. Rambus DRAM is actually an alternative to DDR and is more expensive. Answer option D is incorrect. SIMM is a legacy memory type.

References:

#### **QUESTION 123**

Which of the following resolutions is supported by the SVGA video technology?

- A. 640 x 200
- B. 640 x 480
- C. 800 x 600
- D. 1024 x 768

**Correct Answer:** C **Explanation** 

#### **Explanation/Reference:**

**Explanation:** 

The SVGA video technology supports the resolution of  $800 \times 600$ , where 800 refers to the number of pixels from side to side across the screen, and 600 refers to the number of pixels vertically from top to bottom. Answer option B is incorrect. The VGA video technology supports the resolution of  $640 \times 480$  with 16 colors.

Answer option A is incorrect. The CGA video technology supports the resolution of 640 x 200 with 2 colors. Answer option D is incorrect. The XGA video technology supports the resolution of 1024 x 768.

#### **QUESTION 124**

Which of the following program is used to collect personal information stored in the computer and send it to a third party without the permission of the user?

- A. Grayware
- B. Spyware
- C. Adware
- D. Firewall

**Correct Answer**: B **Explanation** 

## **Explanation/Reference:**

Explanation:

Spyware is used to collect personal information stored in the computer and send it to a third party without the permission of the user. Spyware is a program that takes partial control over a user's computer without user's permission. Spyware programs can collect various types of personal information, such as Internet surfing habits, and Web sites that the user has visited. Spyware programs can also interfere with the control of a user's computer, such as installing additional software, redirecting Web browser activities, accessing

Web sites blindly, etc.

Answer option Č is incorrect. Adware is software that automatically downloads and display advertisements in the Web browser without user permission. When a user visits a site or downloads software, sometimes

hidden adware software is also downloaded to display advertisement automatically. This can be quite irritating to user. Some adware can also be spyware. Answer option A is incorrect. Grayware refers to applications or files that are not classified as viruses or trojan horse programs, but can still negatively affect the performance of the computers on your network and introduce significant security risks to your organization. Often grayware performs a variety of undesired actions such as irritating users with pop-up windows, tracking user habits and unnecessarily exposing computer vulnerabilities to attack. Answer option D is incorrect. A firewall is a program or hardware device that prevents data packets from coming in or going out to a specified network or computer. It is used to separate an internal network from the Internet. A firewall restricts inbound and outbound access, and can analyze all the traffic between a network and the Internet. It checks the protocol through which the packet is being delivered, and the port number to which it is being sent.

References:

#### **QUESTION 125**

Which of the following connectors are used to connect a keyboard to the computer? Each correct answer represents a complete solution. Choose three.

- A. Six-pin mini-DIN connector
- B. USB connector
- C. Five-pin DIN connector
- D. Nine-pin D type male connector

Correct Answer: ABC

**Explanation** 

## **Explanation/Reference:**

Explanation:

The following connectors are used for keyboards:

Five-pin DIN connector

Six-pin mini-DIN connector

**USB** connector

Five-pin DIN connectors are used on the computers with a Baby-AT form factor motherboard. Six-pin mini-DIN connectors are used on PS/2 systems and most computers with LPX, ATX, and NLX motherboards.

## **QUESTION 126**

Which of the following encryption algorithm is used by Wired Equivalent Privacy (WEP)?

- A. RC4
- B. RSA
- C. IDEA
- D. SHA

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

The RC4 encryption algorithm is used by Wired Equivalent Privacy (WEP). Wired Equivalent Privacy (WEP) is a security protocol for wireless local area networks (WLANs). It has two components, authentication and encryption. It provides security, which is equivalent to wired networks, for wireless networks. WEP encrypts data on a wireless network by using a fixed secret key. WEP incorporates a checksum in each frame to provide protection against the attacks that attempt to reveal the key stream. Answer option D is incorrect. The Secure Hash Algorithm (SHA) is a cryptographic hash algorithm. It generates a fixed-length digital representation (message digest) of an input data sequence of any length. The SHA algorithm is very secure, as it is computationally very difficult to find a message that corresponds to a given message digest. In this algorithm, any change to a message will result in a completely different message digest. There are five SHA algorithms: SHA-1, SHA-224, SHA-256, SHA-384, and SHA-512. Answer option B is incorrect. The RSA algorithm is an example of the public key algorithm in which the public key is generated from the private key. In the RSA algorithm, public and private keys are generated

#### as follows:

- 1. Choose two large prime numbers p and q of equal lengths, and compute n=p\*q.
- 2. Choose a random public key e such that e and (p-1)\*(q-1) are relatively prime.
- 3. Calculate e\*d=1\*mod[(p-1)\*(q-1)]. Here, d is a private key.
- 4. Calculate d=e^(-1)\*mod[(p-1)\*(q-1)].
- 5. Now (e,n) and (d,n) are the public and private keys respectively. Answer option C is incorrect. International Data Encryption Algorithm (IDEA) is a block cipher. IDEA operates on 64-bit blocks using a 128-bit key. This algorithm was intended as a replacement for the Data Encryption Standard. IDEA was used in Pretty Good Privacy (PGP) v2.0, and was incorporated after the original cipher used in v1.0 was found to be insecure. It is an optional algorithm in OpenPGP. The cipher is patented in a number of countries but is freely available for non-commercial use. IDEA is a minor revision of an earlier cipher, PES (Proposed Encryption Standard). It was originally known as IPES (Improved PES). References:

#### **QUESTION 127**

Which of the following types of batteries has shortest life?

- A. NiMH
- B. Lead-acid
- C. Silver-zinc
- D. NiCd

**Correct Answer**: D **Explanation** 

## **Explanation/Reference:**

Explanation:

The Nickel-cadmium (NiCd) battery has shortest life that of those Lead-acid and Silver-zinc batteries. This battery has a nominal voltage of 1.2 volts.

Answer options B, A, and C are incorrect. Lead-acid, Nickel-metal hydride (NiMH), and Silver-zinc batteries have more life than NiCd batteries. A NiMH battery can have two to three times the capacity of an equivalent size NiCd.

References:

#### **QUESTION 128**

Which of the following items are configured on a user workstation for wireless networking? Each correct answer represents a complete solution. Choose two.

- A. MAC Address Filtering
- B. Security Set Identifier (SSID)
- C. Service Set Identifier (SSID)
- D. Encryption

Correct Answer: CD

**Explanation** 

## **Explanation/Reference:**

Explanation:

SSID (Service Set Identifier) and encryption are part of the end user configuration. Keep in mind, encryption is not required but is a common requirement in today's networking world. FactWhat is SSID? Hide

Service Set Identifier (SSID) is a configurable client identification that allows a client to communicate with a particular base station. It is a case sensitive name assigned to a wireless device in a Wi-Fi network. A client can communicate with the base station if both have the same SSID. FactWhat is encryption? Hide Encryption is the process of converting plain text data into something that is meaningless and unreadable by a user. It is used to protect data contents from unauthorized users. This process depends mainly on the techniques of hashing and signing data. The encrypted data is sent over the network and is then decrypted or deciphered at the other end of the communication protocol. Answer option A is incorrect. MAC Address Filtering is a feature configured on the wireless access point or wireless security systems. This feature is

not configured by the end user. MAC Address Filtering is a security access control technique that allows specific network devices to access, or prevents them from accessing, the network. MAC Address Filtering can also be used on a wireless network to prevent certain network devices from accessing the wireless network. Answer option B is incorrect. This answer incorrectly defines the SSID acronym. References:

#### **QUESTION 129**

Which of the following is generally defined as the difference between the brightest color (white) and the darkest color (black)?

- A. Reconnaissance
- B. Characterizing
- C. Pixel aspect ratio (PAR)
- D. Contrast ratio

**Correct Answer:** D **Explanation** 

## **Explanation/Reference:**

Explanation:

The contrast ratio is a measure of a display system, defined as the ratio of the luminance of the brightest color (white) to that of the darkest color (black) that the system is capable of producing. A high contrast ratio is a desired aspect of any display, but with the various methods of measurement for a system or its part, remarkably different measured values can sometimes produce similar results. Contrast ratio ratings provided by different manufacturers of display devices are not necessarily comparable to each other due to differences in method of measurement, operation, and unstated variables.

Answer option C is incorrect. Pixel aspect ratio (PAR) is a mathematical ratio that describes how the width of pixels in a digital image compares to their height. Most digital imaging systems describe an image as a grid of very small but nonetheless square pixels. However, some imaging systems, especially those which must maintain compatibility with Standard-definition television motion pictures, define an image as a grid of rectangular pixels in which the width of the pixel is slightly different from that of its height. Pixel Aspect Ratio describes this difference. The Pixel Aspect Ratio value is used mainly in digital video software, where the motion pictures are to be converted or reconditioned so that they are used in other video systems than the original. The video player software may use pixel aspect ratio to properly render digital video on screen. The video editing software uses Pixel Aspect Ratio to properly scale and render a video into a new format. Answer option A is incorrect. Reconnaissance is a term that refers to information gathering behaviors that aim to profile the organization, employees, network, and systems before an attack is performed efficiently. It is the first step in the process of intrusion and involves unauthorized discovery and mapping of systems, services, or vulnerabilities. These discovery and mapping techniques are commonly known as scanning and enumeration. Common tools, commands, and utilities used for scanning and enumeration include ping, telnet, nslookup, rpcinfo, File Explorer, finger, etc. Reconnaissance activities take place before performing a malicious attack. These activities are used to increase the probability of successful operation against the target, and to increase the probability of hiding the attacker's identity.

Answer option B is incorrect. Characterizing is a term used to describe how a particular device currently reproduces color. Characterizing is also known as profiling. Once you have calibrated a device, it is profiled. The profile is a record of how a particular device matches with an objective standard for color reproduction so that it can produce most accurate results possible. References:

#### **QUESTION 130**

Andrew purchases a laptop that has the Windows 2000 Professional operating system. He wants to know about the BIOS version of the computer. Which of the following steps will he take to determine the version of the BIOS? Each correct answer represents a part of the solution. Choose two.

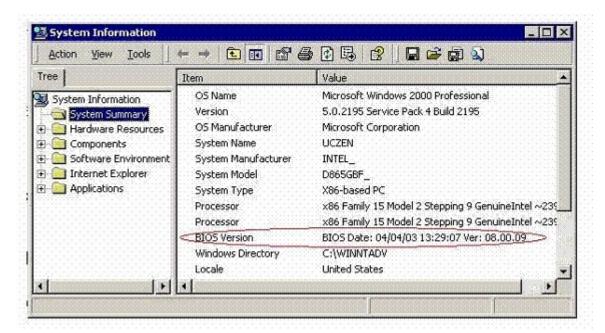
- A. Click the Start menu, choose Programs > Accessories > Communications > System Information.
- B. In the System Information window, click the Hardware Resources folder in the left pane.
- C. Click the Start menu, choose Programs > Accessories > System Tools > System Information.
- D. In the System Information window, click the System Summary folder in the left pane.

Correct Answer: CD Explanation

#### **Explanation/Reference:**

**Explanation:** 

In order to determine the version of the BIOS on Windows 2000/XP computers, the following steps have to be taken: Click the Start menu, choose Programs > Accessories > System Tools> System Informati. In the System Information window, click the System Summary folder in the left pane.



#### **QUESTION 131**

Which of the following switches of the XCOPY command continues to copy files even if errors occur?

- A. /q
- B. /e
- C. /c
- D. /r

**Correct Answer:** C **Explanation** 

#### **Explanation/Reference:**

Explanation:

The /c switch of the XCOPY command continues to copy files even if errors occur. Answer option A is incorrect. The /q switch of the XCOPY command does not display file names while copying. Answer option B is incorrect. The /e switch of the XCOPY command is used to copy directories and subdirectories, including empty directories.

Answer option D is incorrect. The /r switch of the XCOPY command overwrites Read-only files while copying.

References:

## **QUESTION 132**

You are responsible for technical support at a company. An employee complains that they cannot open a particular file. When you see the file in Windows Explorer you note that it is in green. What is causing their problem?

- The file has been corrupted.
- B. The file was created by another user.
- C. The file is from an earlier version of Windows.

D. The file was encrypted by another user.

**Correct Answer**: D **Explanation** 

## Explanation/Reference:

Explanation:

Encrypted files show up in green text and can only be opened by the person who encrypted them (or an administrator with the encryption key).

Answer option B is incorrect. Another user creating a file would not make it unopenable nor would it make it appear in green.

Answer option A is incorrect. Corrupted files do not appear in green text. Answer option C is incorrect. You can open files created in other versions of Windows.

References:

#### **QUESTION 133**

Which of the following is a case sensitive text string used in wireless network and having a maximum length of 32 characters?

- A. SSID
- B. WAP
- C. WTLS
- D. WEP

**Correct Answer:** A **Explanation** 

## Explanation/Reference:

Explanation:

SSID stands for Service Set Identifier. It is used to identify a wireless network. SSIDs are case sensitive text strings and have a maximum length of 32 characters. All wireless devices on a wireless network must have the same SSID in order to communicate with each other. The SSID on computers and the devices in WLAN can be set manually or automatically. Configuring the same SSID as that of the other Wireless Access Points (WAPs) of other networks will create a conflict. A network administrator often uses a public SSID that is set on the access point. The access point broadcasts SSID to all wireless devices within its range. Some newer wireless access points have the ability to disable the automatic SSID broadcast feature in order to improve the network security. Answer option D is incorrect. Wired Equivalent Privacy (WEP) is a security protocol for wireless local area networks (WLANs). It has two components, authentication and encryption. It provides security, which is equivalent to wired networks, for wireless networks. WEP encrypts data on a wireless network by using a fixed secret key. WEP incorporates a checksum in each frame to provide protection against the attacks that attempt to reveal the key stream. Answer option B is incorrect. The Wireless Access Protocol (WAP) is a technology used with wireless devices. The functionality of WAP is equivalent to that of TCP/IP. WAP uses a smaller version of HTML called Wireless Markup Language (WML) to display Internet sites. Answer option C is incorrect. Wireless Transport Layer Security (WTLS) is a security layer of WAP, which is specifically designed for a wireless environment. It provides privacy, data integrity, and authentication for client-server communications over a wireless network. WTLS ensures that a client and server are authenticated so that wireless transactions remain secure and the connection is encrypted. WTLS is required because a wireless network does not provide end-to-end security. References:

#### **QUESTION 134**

Which of the following PCMCIA cards is 3.3mm thick?

- A. TYPE III
- B. TYPE II
- C. TYPE I
- D. TYPE IV

Correct Answer: C Explanation

#### **Explanation/Reference:**

Explanation:

Type I Personal Computer Memory Card International Association (PCMCIA) cards are 3.3mm thick. They are most commonly used for memory cards.

FactWhat is PCMCIA card? Hide

Personal Computer Memory Card International Association (PCMCIA) card is also known as PC card. The PC card uses a small expansion slot and is primarily used in laptops. However, PC cards are also available in some of the desktop computers. There are three types of PCMCIA cards:

1.Type I

2.Type II

3.Type III

Answer option B is incorrect. Type II is the most commonly used PC card type. Most computers have at least two Type II slots. Type II cards are 5mm thick. They are mostly used for modems and LAN adapters. Answer option A is incorrect. Type III PCMCIA cards support hard disk drives. Type III slot is 10.5mm thick.

Answer option D is incorrect. There is no PCMCIA card such as Type IV.

#### **QUESTION 135**

You are selecting upgrade components for a PC. What sort of memory will you find specifically used in video?

- A. SRAM
- B. LRAM
- C. VRAM
- D. DRAM

**Correct Answer**: C **Explanation** 

#### **Explanation/Reference:**

Explanation:

VRAM is a Video RAM and is used in video cards.

FactWhat is video RAM? Hide Video RAM is a type of memory that stores information about the images that are displayed on the monitor screen. All types of video RAM are special arrangements of dynamic RAM (DRAM). It works as a buffer between the computer processor and the display and is often called the frame buffer.

Answer option D is incorrect. DRAM is a standard RAM type for PCs and laptops. Answer option A is incorrect. SRAM is a legacy type of RAM used in PCs.

FactWhat is the function of SRAM? Hide

Static Random Access Memory (SRAM) is used for a computer's cache memory and as part of the random access memory digital-to-analog converter on a video card. Unlike DRAM, SRAM does not have to be periodically refreshed. SRAM retains data bits in its memory as long as power is being supplied. SRAM is significantly faster and more expensive than DRAM. Answer option B is incorrect. LRAM is not an actual memory type.

References:

#### **QUESTION 136**

Which of the following statements about the compression feature of the NTFS file system are true? Each correct answer represents a complete solution. Choose two.

- A. Compressed files on an NTFS volume can be read and written by any Windows-based application after they are decompressed.
- B. Users can work with NTFS-compressed files without decompressing them.
- C. It supports compression only on volumes.
- D. It supports compression on volumes, folders, and files.

Correct Answer: BD Explanation

#### **Explanation/Reference:**

Explanation:

NTFS compression is available on volumes that use the NTFS file system. It has the following features: Users can work with NTFS-compressed files without decompressing them. It supports compression on volumes, folders, and files. NTFS-compressed file and folder names can be displayed in a different color to make them easier to identify.

FactWhat is NTFS compression? Hide

Compression is a process of reducing the actual size of a file stored on the hard disk. The compression that is available only on NTFS-formatted volumes is called NTFS compression. The following rules are applied to the compressed files or folders when they are moved or copied from one location to another:

- 1. When files and folders are moved within the same NTFS volume, they retain their original state.
- 2. When files and folders are copied within the same NTFS volume, the original compression attribute is lost and the files and folders inherit the compression attribute of the destination folder.
- 3. When files and folders are moved or copied between NTFS volumes, the files and folders inherit the compression attribute of the destination folder.

Note: File compression is available on a Windows XP Professional computer only on NTFS volumes. References:

#### **QUESTION 137**

Which of the following term is used for software designed and optimized for controlling what content is permitted to a reader, especially when it is used to restrict material delivered over the Web?

- A. Content-control software
- B. Activex control
- C. Malware
- D. Spyware

Correct Answer: A Explanation

## Explanation/Reference:

Explanation:

Content-control software term is used for software designed and optimized for controlling what content is permitted to a reader, especially when it is used to restrict material delivered over the Web. Answer option D is incorrect. Spyware is a program that takes partial control over a user's computer without user's permission. Spyware programs can collect various types of personal information, such as Internet surfing habits, and Web sites that the user has visited. Spyware programs can also interfere with the control of a user's computer, such as installing additional software, redirecting Web browser activities, accessing Web sites blindly, etc.

Answer option C is incorrect. The term malware refers to malicious software, which is a broad class of malicious viruses, including spyware.

Malware is designed to infiltrate or damage a computer without the consent of the owner. Answer option B is incorrect. ActiveX controls are software components that can be integrated into Web pages and applications, within a computer or among computers in a network, to reuse the functionality. References:

#### **QUESTION 138**

How many pins are used in HDMI Type A and Type B connectors?

- A. 20 pins and 29 pins
- B. 18 pins and 28 pins
- C. 24 pins and 28 pins
- D. 19 pins and 29 pins

**Correct Answer:** D **Explanation** 

## Explanation/Reference:

Explanation:

HDMI stands for High-Definition Multimedia Interface. It is a standard, uncompressed, and all-digital audio/video interface. HDMI is capable of delivering the highest quality digital video and multichannel digital audio on a single cable. It provides an interface between any audio/video sources, such as a DVD player or a computer and a digital television (DTV) or video monitor. HDMI transmits all ATSC HDTV standards and supports 8-channel digital audio, with extra bandwidth to accommodate future enhancements. HDMI has two types of connectors: Type A and Type B. Type A and Type B connectors use 19 pins and 29 pins, respectively. The Type B connector is designed for very high- resolution displays that are expected in near future.

References:

## **QUESTION 139**

Which of the following ports does not support hot plugging?

- A. USB 2.0
- B. Serial port (RS-232)
- C. FireWire 800
- D. FireWire 400

Correct Answer: B Explanation

## Explanation/Reference:

Explanation:

Serial port (RS-232) does not support hot plugging.

RS-232 standard is a specification for serial communication ports, also known as COM ports, serial ports, or RS-232 ports, and is used to connect RS-232 compatible serial devices, such as modems and pointing devices to a computer.

Answer options D, A, and C are incorrect. All these ports support hot plugging.

## **QUESTION 140**

Which of the following refers to the process of verifying the identity of a person, network host, or system process?

- A. Auditing
- B. Authentication
- C. Hacking
- D. Packet filtering

Correct Answer: B Explanation

## Explanation/Reference:

Explanation:

Authentication is a process of verifying the identity of a person, network host, or system process. The authentication process compares the provided credentials with the credentials stored in the database of an authentication server.

Answer option C is incorrect. Hacking is a process by which a person acquires illegal access to a computer or network through a security break or by implanting a virus on the computer or network. Answer option D is incorrect. Packet filtering is a method that allows or restricts the flow of specific types of packets to provide security. It analyzes the incoming and outgoing packets and lets them pass or stops them at a network interface based on the source and destination addresses, ports, or protocols. Packet filtering provides a way to define precisely which type of IP traffic is allowed to cross the firewall of an intranet. IP packet filtering is important when users from private intranets connect to public networks, such as the Internet.

Answer option A is incorrect. Auditing is used to track user accounts for file and object access, logon attempts, system shutdown etc. This enhances the security of the network. Before enabling auditing, the

type of event to be audited should be specified in the Audit Policy in User Manager for Domains. References:

## **QUESTION 141**

Which of the following techniques are used to secure wireless networks? Each correct answer represents a complete solution. Choose three.

- A. MAC address filtering
- B. IP spoofing
- C. Closed network
- D. SSID spoofing

Correct Answer: ACD

**Explanation** 

## **Explanation/Reference:**

Explanation:

Closed network, SSID spoofing, and MAC address filtering are techniques that can be used to secure wireless networks.

In the closed network technique, the wireless access point (WAP) does not broadcast its Service Set Identifier (SSID). Users are required to know the SSID to ensure whether or not the wireless network exists. In the SSID spoofing technique, a software generates numerous WAP packets that advertise bogus SSIDs. When hackers scan for a wireless network, they receive the bogus SSIDs that cannot be differentiated from a valid SSID.

Most WAPs support MAC address filtering that limits the clients, so that the WAP communicates only with valid media access control (MAC) addresses.

Answer option B is incorrect. In IP spoofing, a user modifies packet headers using someone else's IP address to hide his identity. However, IP spoofing cannot be used while surfing the Internet, chatting online etc. This is because forging the source IP address causes the responses to be misdirected. References:

#### **QUESTION 142**

You work as a Network Administrator for Infonet Inc. The company's office has a wireless network. Wireless access point on the network works as a router and DHCP server. You want to configure a laptop to connect to the wireless network. What will you configure on the laptop to accomplish the task?

- A. I/O address
- B. Demilitarized zone
- C. Service Set Identifier
- D. Internet service provider's DNS server address

**Correct Answer:** C **Explanation** 

## Explanation/Reference:

Explanation:

In order to accomplish the task, you will have to configure Service Set Identifier (SSID) on the laptop. SSID stands for Service Set Identifier. It is used to identify a wireless network. SSIDs are case sensitive text strings and have a maximum length of 32 characters. All wireless devices on a wireless network must have the same SSID in order to communicate with each other. The SSID on computers and the devices in WLAN can be set manually and automatically. Configuring the same SSID as that of the other Wireless Access Points (WAPs) of other networks will create a conflict. A network administrator often uses a public SSID that is set on the access point. The access point broadcasts SSID to all wireless devices within its range. Some newer wireless access points have the ability to disable the automatic SSID broadcast feature in order to improve network security. Answer option D is incorrect. Configuring the ISP's DNS server address on the laptop has nothing to do with this issue.

Answer option A is incorrect. I/O address is a communication port between a device and the CPU. The CPU needs a memory address, known as Input/Output (I/O) address, to communicate with any peripheral device. I/O address is a hexadecimal number that the CPU uses to identify a device. I/O address allows

the CPU to send instructions to devices installed on the bus slot of a computer.

#### **QUESTION 143**

Which of the following types of display takes the least space on a desk?

- A. Mercury
- B. LED
- C. CRT
- D. LCD

Correct Answer: D Explanation

## Explanation/Reference:

Explanation:

The Liquid Crystal Display (LCD) is an electronically modulated optical amplification shaped into a thin, flat display device made up of any number of color or monochrome pixels arrayed in front of a light source (backlight) or reflector. It is often utilized in battery-powered electronic devices because it uses very small amounts of electric power. The LCD display also takes the least space on a desk. Answer options C and B are incorrect. CRT and Light Emitting Diode (LED) displays take lots of space as compared to LCD display.

#### **QUESTION 144**

What is the maximum cable length that FireWire 800 supports?

- A. 2 meters
- B. 2.5 meters
- C. 4.5 meters
- D. 8 meters

Correct Answer: C

**Explanation** 

## **Explanation/Reference:**

Explanation:

FireWire 800 is a version of the FireWire standard that is also known as IEEE 1394b specification. The FireWire 800 version supports a maximum cable length of up to 4.5 meters. By using optical repeaters with FireWire 800, the cable length can be extended up to 1000 meters. FireWire 800 supports data transfer rates up to 800 Mbps. The original IEEE 1394 specification is also known as FireWire 400. The FireWire 400 supports data transfer rates up to 400 Mbps.

## **QUESTION 145**

Which of the following statements about the XCOPY command is true?

- A. XCOPY /s copies system files only.
- B. XCOPY deletes all files and subdirectories.
- C. XCOPY copies archived files only.
- D. XCOPY /s copies files and subdirectories.

**Correct Answer:** D **Explanation** 

## Explanation/Reference:

Explanation:

XCOPY is a command-line utility that copies files and directory trees. XCOPY is similar to the COPY command except that it has many more switches that allow considerable control over exactly what is copied when using wildcards. The XCOPY command with the /s switch copies all directories and

subdirectories in the hard disk, unless they are empty. References:

#### **QUESTION 146**

Which of the following is the default resolution for a VGA monitor?

- A. 800x600-pixels
- B. 1024x768-pixels
- C. 320x200-pixels
- D. 640x480-pixels

**Correct Answer:** D **Explanation** 

## **Explanation/Reference:**

Explanation:

Video Graphic Array (VGA) monitors have a default resolution of 640x480-pixels. This is known as standard VGA resolution. Although computers typically use this resolution by default, you can get better resolution using a specifically designed video driver for the installed adapter. Answer options A, C, and B are incorrect. Super VGA monitors have a default resolution of 800x600- pixels.

A VGA or SVGA connector is a 15-pin, three rows, female connector, on the back of a PC used for connecting monitors.

References:

#### **QUESTION 147**

Which of the following devices is used to provide visual input that can be easily transferred over the internet?

- A. Solid-state drive
- B. Webcam
- C. Iomega Zip drive
- D. Trackball

Correct Answer: B Explanation

## Explanation/Reference:

Explanation:

Webcam is a video camera used to provide visual input that can be easily transferred over the internet. Answer option D is incorrect. Trackball is a pointing device consisting of an exposed protruding ball housed in a socket that detects rotation about two axes. Answer option A is incorrect. Solid-state drive is a device similar to hard disk. It does not contain moving parts and stores data in a digital format. Answer option C is incorrect. lomega Zip drive is an outdated medium-capacity removable disk storage system.

References:

## **QUESTION 148**

Which of the following protocols are used by Network Attached Storage (NAS)? Each correct answer represents a complete solution. Choose all that apply.

- A. Server Message Block (SMB)
- B. Network File System (NFS)
- C. Distributed file system (Dfs)
- D. Apple Filing Protocol (AFP)

Correct Answer: ABD

**Explanation** 

#### **Explanation/Reference:**

Explanation:

The following protocols are used by Network attached storage (NAS):

Network File System (NFS)

Server Message Block (SMB)

Apple Filing Protocol (AFP)

NAS uses file-based protocols such as NFS (on UNIX systems), SMB/CIFS (Server Message Block/Common Internet File System) used with MS Windows systems, and AFP (used with Apple Macintosh computers). NAS units rarely limit clients to a single protocol.

## **QUESTION 149**

Which of the following interfaces provides the fastest data transfer rate for printing a document on a printer?

- A. FireWire 800
- B. IEEE 802.11b
- C. IEEE 802.11a
- D. USB 2.0

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

Firewire 800 is the fastest data transfer interface for printing a document on a printer. It is the secondgeneration interface that transfers data at the rate of 800 Mbps. The original FireWire specification, FireWire 400, runs at 400 Mbps.

Answer option D is incorrect. USB 2.0 has a maximum data transfer rate of 480 Mbps. Answer option C is incorrect. The IEEE 802.11a interface has a maximum bandwidth of 54 Mbps. Answer option B is incorrect. The IEEE 802.11b interface has a maximum bandwidth of 11 Mbps.

"http://www.cwol.com/firewire/firewire-vs-usb.htm"

#### **QUESTION 150**

What is the thickness of Type II PCMCIA Card?

- A. 5.5mm card
- B. 3.3mm cards
- C. 10.5mm cards
- D. 6.5mm cards

Correct Answer: A Explanation

## Explanation/Reference:

Explanation:

The thickness of Type II PCMCIA Card is 5.5 mm.

Personal Computer Memory Card International Association (PCMCIA) card is also known as PC card. The PC card uses a small expansion slot and is primarily used in laptops. However, PC cards are also available in some of the desktop computers. There are three types of PCMCIA cards:

- 1.Type I
- 2.Type II
- 3.Type III

Answer option B is incorrect. The thickness of Type I PCMCIA Card is 3.3 mm. Answer option D is incorrect. There is no such size of the thickness of Type II PCMCIA Card such as 6.5 inches mm.

## **QUESTION 151**

Which of the following devices also works as a video capture card?

- A. Web Camera
- B. Image Scanner
- C. SD card
- D. TV tuner card

Correct Answer: D Explanation

## Explanation/Reference:

Explanation:

Most TV tuner cards also work as video capture cards.

A video capture card is a computer component that allows television signals to be received by a computer. It also allows television programs to be recorded onto a hard disk. Video capture cards are a class of video capture devices designed to plug directly into expansion slots in personal computers and servers. These cards comply with one of the popular host bus standards including PCI, newer PCI Express (PCIe), or AGP bus interfaces.

Answer options C, A, and B are incorrect. These devices do not work as video capture card. Web Camera is a used to provide visual input that can be easily transferred over the internet. Image scanner is a device that provides input by analyzing images, printed text, handwriting, or an object.

#### **QUESTION 152**

Which of the following can be used to maintain data related to the user during navigation, possibly across multiple visits?

- A. Web caching
- B. CPU cache
- C. Cookie
- D. Access control list

Correct Answer: C Explanation

## Explanation/Reference:

**Explanation:** 

Cookie can be used to maintain data related to the user during navigation, possibly across multiple visits. Cookie is a block of data, which a Web server stores on the client computer. If no expiration date is set for the cookie, it expires when the browser closes. If the expiration date is set for a future date, the cookie will be stored on the client's disk after the session ends. If the expiration date is set for a past date, the cookie is deleted

Answer option D is incorrect. Access Control List (ACL) is the most commonly used object in Cisco IOS. It filters packets or network traffic by controlling whether routed packets are forwarded or blocked at the router's interfaces. According to the criteria specified within the access lists, router determines whether the packets to be forwarded or dropped. Access control list criteria could be the source or destination address of the traffic or other information. The types of Cisco ACLs are Standard IP, Extended IP, IPX, Appletalk, etc. Answer option A is incorrect. Web caching is a method for minimizing performance bottlenecks and reducing network traffic by serving locally cached Web content. Web caching helps in reducing bandwidth utilization during periods of high network traffic. High network traffic is usually caused when a large number of users use the network at the same time. With a caching solution in place, users' requests will be returned from the cache without having to travel over a WAN link to the destination Web server.

Answer option B is incorrect. A CPU cache is a smaller faster memory used by the central processing unit of a computer to reduce the average time to access memory. It stores copies of the data from the most frequently used main memory locations. When the processor needs to read from or write to a location in main memory, it first checks whether a copy of that data is in the cache. If so, the processor immediately reads from or writes to the cache, which is much faster than reading from or writing to main memory. References:

#### **QUESTION 153**

Which of the following protocols allows an e-mail client to access e-mails that are stored on a remote mail server?

- A. PPPoE
- B. IMAP
- C. SMTP
- D. ICMP

**Correct Answer:** B **Explanation** 

## **Explanation/Reference:**

Explanation:

IMAP stands for Internet Message Access Protocol. This protocol helps to retrieve e-mail messages stored on a shared e-mail server. Through this protocol, a user can use a client e-mail program/Mail User Agent (MUA) for downloading an e-mail from the shared server. A user can also use this protocol to edit or delete an e-mail from the shared e-mail server. An example of the IMAP protocol is the POP3 protocol that is quite simple and used for retrieving e-mails from a mail server. Answer option C is incorrect. Simple Mail Transfer Protocol (SMTP) is a protocol for sending e-mail messages between servers. E-mailing systems use this protocol to send mails over the Internet. SMTP works on the application layer of the TCP/IP or OSI reference model. The SMTP client typically initiates a Transmission Control Protocol (TCP) connection to the SMTP server on the well- known port designated for SMTP, port number 25. However, e-mail clients require POP or IMAP to retrieve mails from e-mail servers. Answer option A is incorrect. Point to Point Protocol over Ethernet (PPPoE) is a specification for establishing PPP connections through Ethernet network adapters. It connects users on an Ethernet to the Internet through a common broadband medium, such as a single DSL line or cable modem. PPPoE is described in RFC 2516. Answer option D is incorrect. Internet Control Message Protocol (ICMP) is a maintenance protocol and is normally considered part of the IP layer. ICMP messages are encapsulated within IP datagrams, so that they can be routed throughout an internetwork. References:

## **QUESTION 154**

You work as a Network Administrator for Infonet Inc. The company uses Wired Equivalent Privacy (WEP) for wireless security. Who among the following can authenticate from the access point of the network?

- A. Only users within the company.
- B. Only users with the correct WEP key.
- C. Anyone can authenticate.
- D. Only the administrator.

Correct Answer: B Explanation

## Explanation/Reference:

Explanation:

Only users with the correct WEP key can authenticate from the access point of the network. What is WEP?

Wired Equivalent Privacy (WEP) is a security protocol for wireless local area networks (WLANs). It has two components, authentication and encryption. It provides security, which is equivalent to wired networks, for wireless networks. WEP encrypts data on a wireless network by using a fixed secret key. WEP incorporates a checksum in each frame to provide protection against the attacks that attempt to reveal the key stream.

References:

#### **QUESTION 155**

Which of the following PCMCIA card supports hard disk drives?

- A. Type VI
- B. Type I
- C. Type II

## D. Type III

**Correct Answer:** D **Explanation** 

#### **Explanation/Reference:**

Explanation:

Type III Personal Computer Memory Card International Association (PCMCIA) card supports hard disk drives. Type III slot is 10.5mm thick.

PCMCIA cards are also known as PC cards. The PC card uses a small expansion slot and is primarily used in laptop computers. PC cards are also available for desktop computers. Answer option B is incorrect. Type I card is most commonly used for memory. It is 3.3mm thick. Answer option C is incorrect. Type II card is mostly used for modem and LAN adapters. Type II card is 5mm thick. It is the most common PC card type. Most of the laptop computers have at least two Type II slots.

#### **QUESTION 156**

Which of the following statements about a serial port are true? Each correct answer represents a complete solution. Choose all that apply.

- A. It is used to connect a printer and a scanner to a computer.
- B. It sends data one bit at a time, over a single wire.
- C. It has 9-pin and 25-pin connectors on personal computers.
- D. It sends data eight bits at a time, over a single wire.

**Correct Answer:** BC **Explanation** 

## Explanation/Reference:

Explanation:

Answer options B and C are correct.

Serial port is the primary means for connecting modems and mouse to a computer. There are two types of serial port connectors, 9-pin and 25-pin. The word serial refers to the that data is sent in series, one bit at a time, over a single wire. This design is significantly slower than sending 8 bits at a time via a parallel channel, but serial signals can travel much farther without degradation. Reference: TechNet, Contents:" The Road to USB. Tracking the Next Peripheral Communications Channel"

## **QUESTION 157**

Which of the following statements about CPU throttling are true? Each correct answer represents a complete solution. Choose two.

- A. It is a process of cutting down the CPU processing time for an application, which is malfunctioning.
- B. It is the process of running a computer component, such as CPU, at a higher clock rate than specified by the component manuarer.
- C. It prevents applications using more than a certain percentage of CPU time in a certain time frame.
- D. It is a method for minimizing performance bottlenecks and reducing network traffic by serving locally cached Web content.

**Correct Answer:** AC **Explanation** 

## **Explanation/Reference:**

Explanation:

CPU throttling is a process of cutting down the CPU processing time for an application, which is malfunctioning. For example, if a Terminal Server user opens an application that uses 100% of the CPU time, the whole server becomes unresponsive, and other logged in users on the Terminal Server experience a slow performance, then CPU throttling is needed for freeing up CPU time and making the server performance better. In this situation, CPU throttling prevents applications using more than a certain percentage of CPU time in a certain time frame. It provides users a better Server Based Computing experience.

Answer option D is incorrect. Web caching is a method for minimizing performance bottlenecks and

reducing network traffic by serving locally cached Web content. Web caching helps in reducing bandwidth utilization during periods of high network traffic. High network traffic is usually caused when a large number of users use the network at the same time. With a caching solution in place, users' requests will be returned from the cache without having to travel over a WAN link to the destination Web server. Answer option B is incorrect. Overclocking is the process of running a computer component, such as CPU, at a higher clock rate than specified by the component manuarer. By increasing clock frequencies of the components, the performance of computers can be improved at very little cost. Users who overclock computer components generally try to enhance the performance of processors, video cards, RAM, and motherboard chipsets. The overclocked components produce excessive heat. Therefore, an effective cooling system is required to avoid damage to the hardware. Users who practice overclocking often employ heavy-duty heatsinks and powerful fans.

#### **QUESTION 158**

Which of the following is an e-mail message retrieval protocol that allows e-mail clients to retrieve email messages from e-mail servers?

- A. SMTP
- B. IMAP
- C. SNMP
- D. PPTP

Correct Answer: B Explanation

## **Explanation/Reference:**

Explanation:

IMAP is an e-mail message retrieval protocol that allows e-mail clients to retrieve e-mail messages from e-mail servers.

IMAP stands for Internet Message Access Protocol. This protocol helps to retrieve e-mail messages stored on a shared e-mail server. Through this protocol, a user can use a client e-mail program/Mail User Agent (MUA) for downloading an e-mail from the shared server. A user can also use this protocol to edit or delete an e-mail from the shared e-mail server. Answer option C is incorrect. Simple Network Management Protocol (SNMP) is a part of the TCP/IP protocol suite, which allows users to manage the network. SNMP is used to keep track of what is being used on the network and how the object is behaving. Answer option D is incorrect. The Pointto- Point Tunneling Protocol (PPTP) is a method for implementing virtual private networks. PPTP does not provide confidentiality or encryption. It relies on the protocol being tunneled to provide privacy. It is used to provide secure, low-cost remote access to corporate networks through public networks such as the Internet. Using PPTP, remote users can use PPP-enabled client computers to dial a local ISP and connect securely to the corporate network through the Internet. PPTP has been made obsolete by Layer 2 Tunneling Protocol (L2TP) and IPSec.

Answer option A is incorrect. Simple Mail Transfer Protocol (SMTP) is a protocol for sending e-mail messages between servers. E-mailing systems use this protocol to send mails over the Internet. SMTP works on the application layer of the TCP/IP or OSI reference model. The SMTP client typically initiates a Transmission Control Protocol (TCP) connection to the SMTP server on the well- known port designated for SMTP, port number 25. However, e-mail clients require POP or IMAP to retrieve mails from e-mail servers.

References:

#### **QUESTION 159**

Which of the following terms describes software technologies that improve portability, manageability and compatibility of applications by encapsulating them from the underlying operating system on which they are executed?

- A. Encapsulation
- B. Application virtualization
- C. Failover
- D. System hardening

Correct Answer: B Explanation

## **Explanation/Reference:**

Explanation:

Application virtualization is an umbrella term that describes software technologies that improve portability, manageability and compatibility of applications by encapsulating them from the underlying operating system on which they are executed. A fully virtualized application is not installed in the traditional sense, although it is still executed as if it is. The application is fooled at runtime into believing that it is directly interfacing with the original operating system and all the resources are managed by it, when in reality it is not. Application virtualization differs from operating system virtualization in that in the latter case, the whole operating system is virtualized rather than only specific applications.

Answer option D is incorrect. System hardening is a term used for securing an operating system. It can be achieved by installing the latest service packs, removing unused protocols and services, and limiting the number of users with administrative privileges. Answer option A is incorrect. Encapsulation is an object-oriented programming term used to define the ability to contain and hide information about an object, such as internal data structures and code. Encapsulation isolates the internal complexity of an object's operation from the rest of the application. For example, when you set the width property on a command button, you do not need to know how the value is stored and how the command button is resized. Answer option C is incorrect. Failover is a term associated with cluster services. It refers to the ability of a server to immediately start servicing the requests if a primary server fails. If the application services in a clusternode fail, the Cluster Service generally tries to restart them on the same node. If the services do not start, then it moves the services to another node in the cluster and restarts them on that node. References:

#### **QUESTION 160**

Which of the following statements about hibernate mode are true? Each correct answer represents a complete solution. Choose two.

- A. When a computer resumes from hibernate mode, it reads the saved settings from the disk and restores the system state as it was before it entered hibernate mode.
- B. Users have to enter hibernate mode manually on the computers that are not ACPI-enabled or APM-enabled.
- C. Computers that are not ACPI-enabled or APM-enabled automatically enter hibernate mode.
- D. When a computer resumes from hibernate mode, it reads the saved settings from the computer's RAM and restores the system state as it was before it entered hibernate mode.

Correct Answer: AB Explanation

## **Explanation/Reference:**

Explanation:

Hibernate mode is a power saving feature for computers. In hibernate mode, the current state of a computer is saved to the hard disk, and the computer shuts down. A user will have to power on the computer to restore the previous settings. When a computer resumes from hibernate mode, it reads the saved settings from the disk and restores the system state as it was before it entered hibernate mode. By default, hibernate mode is disabled. If a computer is not ACPI-enabled or APM-enabled, users will have to enter hibernate mode manually.

Users cannot set the computer to automatically hibernate after a certain time. With ACPI-enabled and APM-enabled computers, users are able to set hibernate mode automatically. References:

## **QUESTION 161**

Which of the following energy saving standards is used to control only monitors and video cards?

- A. ACPI
- B. APM
- C. ASPI
- D. DPMS

Correct Answer: D

## **Explanation**

## Explanation/Reference:

Explanation:

The Display Power Management Signaling (DPMS) standard is used to control monitors and video cards. It must be enabled by an operating system such as Windows 9x/2000/Me through Control Panel. Answer option B is incorrect. The APM standard can be used to control monitors, hard disks, and other peripherals.

Answer option A is incorrect. The ACPI standard can be used to control all APM peripherals and other computer devices.

Answer option C is incorrect. There is no such energy saving standard as ASPI.

#### **QUESTION 162**

Which of the following indicates the subjects that can use them?

- A. Access control list
- B. Audit policy
- C. Intrusion detection system
- D. Single sign-on

Correct Answer: A Explanation

#### **Explanation/Reference:**

Explanation:

Access control list indicates what subjects can use them. Access Control List (ACL) is the most commonly used object in Cisco IOS. It filters packets or network traffic by controlling whether routed packets are forwarded or blocked at the router's interfaces.

According to the criteria specified within the access lists, router determines whether the packets to be forwarded or dropped. Access control list criteria could be the source or destination address of the traffic or other information. The types of Cisco ACLs are Standard IP, Extended IP, IPX, Appletalk, etc. Answer option B is incorrect. Audit policy defines the type of security events that will be logged for the servers of a domain or for an individual computer. It does not indicate what subjects can use them. Answer option C is incorrect. An Intrusion detection system (IDS) is software and/or hardware designed to detect unwanted attempts at accessing, manipulating, and/or disabling of computer systems, mainly through a network, such as the Internet. These attempts may take the form of attacks, as examples, by crackers, malware and/or disgruntled employees. An IDS cannot directly detect attacks within properly encrypted traffic. An intrusion detection system is used to detect several types of malicious behaviors that can compromise the security and trust of a computer system. This includes network attacks against vulnerable services, data driven attacks on applications, host based attacks such as privilege escalation, unauthorized logins and access to sensitive files, and malware (viruses, trojan horses, and worms). Answer option D is incorrect. Single sign-on is a process that enables a user with a domain account to log on to a network once, using a password or smart card, and to gain access to multiple computers in the domain without being prompted to log in again. References:

#### **QUESTION 163**

Which of the following relies on a physical characteristic of the user to verify his identity?

- A. Biometrics
- B. Social Engineering
- C. CHAP
- D. Kerberos v5

Correct Answer: A Explanation

## Explanation/Reference:

Explanation:

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