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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:

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:

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:**

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:**

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:**

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:

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.

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:** 

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 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:

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:

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:

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**:

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

DRAG DROP

Drag and drop the appropriate class of fire extinguisher in front of types of fires.



#### Correct Answer:

Type of Fire  Wood and Paper Fire  Electrical Fire		Appropriate Fire Extinguisher Used		
		Class A		
		Class C		
Flam	nable liquids and gases	Class B		
	Class A	Class C		
	Class B	Class D		

### **QUESTION 13**

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:

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 14**

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:

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 manuarers to produce computers that automatically power up as soon as a user touches the keyboard.

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

**HOTSPOT** 

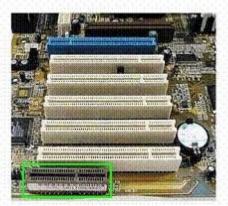
Identify the CNR slot in the image given below.

Click on the correct spot in the image. Doing so will place the target icon at the clicked spot.



#### **Correct Answer:**

Click on the correct spot in the image. Doing so will place the target icon at the clicked spot.



#### **QUESTION 16**

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:**

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 highdefinition 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.

"http://en.wikipedia.org/wiki/Solid-state\_drive"

#### **QUESTION 17**

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.
- Copy the files and the Windows Registry to a removable media then copy it onto the new machines.

# Correct Answer: C 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 18**

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:

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 19**

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:**

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 20**

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:

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"

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:

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 22**

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:**

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 23**

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:** 

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 24**

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:

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"

HOTSPOT

Identify the S-Video port in the image given below.



#### **Correct Answer:**



#### **QUESTION 26**

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:**

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.

Reference:

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

#### **QUESTION 27**

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:**

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"

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:

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 29**

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:

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

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:

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 31**

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:

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 32**

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:

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 33**

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:

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 34**

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:

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.

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:

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 Think Pad 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 36**

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:**

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.

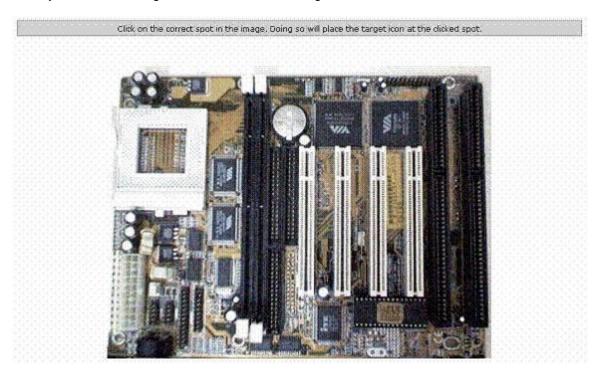
Answer option C is incorrect. Sag is a brief decrease in voltage at the power source. Answer option B is incorrect. Uninterrupted Power Supply (UPS) continues to supply power to the devices in case of power failure.

What is UPS?

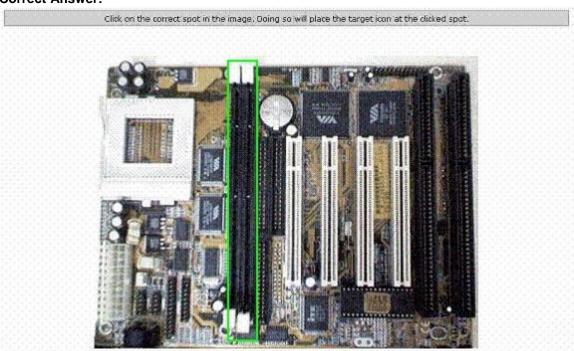
Uninterruptible power supply (UPS) is a device that allows a computer to keep running for a short period of time in case of power failure or low voltage, using battery backup. It also provides protection against power surges. When power surge occurs, only the UPS charging circuit is affected, while the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

HOTSPOT

Identify the area showing the DIMM slots in the image of the motherboard.



### **Correct Answer:**



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

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

### Correct Answer: A 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-tomany 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 39**

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:**

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.

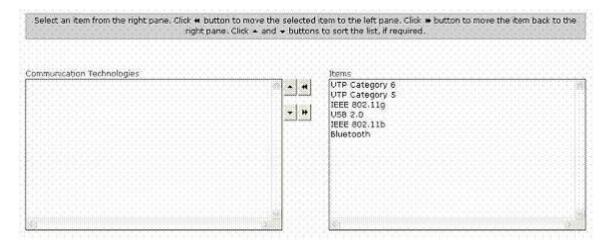
Reference:

http://support.microsoft.com/kb/948187/en-us

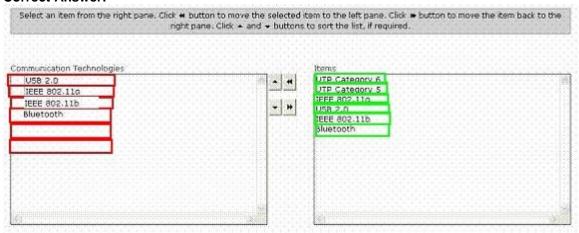
#### **QUESTION 40**

DRAG DROP

Choose the communication technologies in descending order of their data transfer rates.



#### **Correct Answer:**



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300-208	640-864	CLO-001	SK0-003	<u>1Z0-474</u>	VCP5-DCV	RedHat
350-018	642-467	<u>ISS-001</u>	SY0-301	1Z0-482	VCP510PSE	EX200
352-001	642-813	<u>JK0-010</u>	SY0-401	1Z0-485		EX300
400-101	642-832	<u>JK0-801</u>	PK0-003	<u>1Z0-580</u>		
640-461	642-902			1Z0-820		

