[Updated Constantly]

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IT Essentials (ITE v6.0 + v7.0) Chapter 1 Exam Answers 100%

1. A customer comes into a computer parts and service store. The customer is looking for a device to help a person with accessibility issues input instructions into a laptop by using a pen. What device should the store owner recommend to accomplish the required task?

- **stylus***
- biometric scanner
- keyboard
- NFC device

2. A customer comes into a computer parts and service store. The customer is looking for a device to provide secure access to the central server room using a retinal scan. What device should the store owner recommend to accomplish the required task?

- **biometric scanner***
- keyboard
- NFC device
- flatbed scanner

3. A customer comes into a computer parts and service store. The customer is looking for a device to help when repairing an airplane and that will allow the customer to see and interact with the repair manual at the same time. What device should the store owner recommend to accomplish the required task?

- **AR headset***
- biometric scanner
- keyboard
- NFC device

4. A customer comes into a computer parts and service store. The customer is looking for a device to manually input text for a new networking textbook that the customer is writing. What device should the store owner recommend to accomplish the required task?

- **keyboard***
- biometric scanner
- NFC device
- flatbed scanner

5. A customer comes into a computer parts and service store. The customer is looking for a device to allow secure access to the main doors of the company by swiping an ID card. What device should the store owner recommend to accomplish the required task?

- **magstripe reader***
- biometric scanner
- keyboard

- NFC device

6. A customer comes into a computer parts and service store. The customer is looking for a device to allow users to tap and pay for their purchases. What device should the store owner recommend to accomplish the required task?
- **NFC device***
- joystick or gamepad
- projector
- magstripe reader

7. A customer comes into a computer parts and service store. The customer is looking for a device to allow secure access to the main doors of the company by swiping an ID card. What device should the store owner recommend to accomplish the required task?
- **magstripe reader***
- joystick or gamepad
- projector
- AR headset

8. A customer comes into a computer parts and service store. The customer is looking for a device to display a promotional presentation to a large audience at a conference. What device should the store owner recommend to accomplish the required task?
- **projector***
- joystick or gamepad
- magstripe reader
- AR headset

9. A customer comes into a computer parts and service store. The customer is looking for a device to scan some old family photos into a laptop. What device should the store owner recommend to accomplish the required task?
- **flatbed scanner***
- joystick or gamepad
- projector
- magstripe reader

10. A customer comes into a computer parts and service store. The customer is looking for a device to train pilots how to land and take off in a computer simulation environment. What device should the store owner recommend to accomplish the required task?
- **joystick or gamepad***
- projector
- magstripe reader
- AR headset

11. Which characteristic describes DDR3 SDRAM?
- **chips that run at clock speeds of 800 MHz and have a connector with 240 pins***
- an individual memory chip that has dual rows of pins used to attach it to the motherboard
- a small circuit board that holds several memory chips and has a 30- or 72-pin configuration

- chips specifically designed for video graphics that are used in conjunction with a dedicated GPU

12. Which characteristic describes ECC memory?

- **chips that can detect multiple bit errors and correct single bit errors in memory***
- chips specifically designed for video graphics that are used in conjunction with a dedicated GPU
- an individual memory chip that has dual rows of pins used to attach it to the motherboard
- chips that run at clock speeds of 800 MHz and have a connector with 240 pins

13. Which characteristic describes GDDR SDRAM?

- **chips specifically designed for video graphics that are used in conjunction with a dedicated GPU***
- chips that require constant power to function and are often used for cache memory
- chips that run at clock speeds of 800 MHz and have a connector with 240 pins
- chips whose contents can be "flashed" for deletion and are often used to store BIOS

14. Which characteristic describes ROM?

- **a chip that cannot be erased or rewritten and is now obsolete***
- chips that run at clock speeds of 800 MHz and have a connector with 240 pins
- chips specifically designed for video graphics that are used in conjunction with a dedicated GPU
- chips that require constant power to function and are often used for cache memory

15. Which characteristic describes a DIP?

- **an individual memory chip that has dual rows of pins used to attach it to the motherboard***
- chips that require constant power to function and are often used for cache memory
- chips that run at clock speeds of 800 MHz and have a connector with 240 pins
- chips whose contents can be "flashed" for deletion and are often used to store BIOS

16. Which characteristic describes PROM?

- **chips that are manufactured blank and then can be programmed once by a PROM programmer***
- chips that run at clock speeds of 800 MHz and have a connector with 240 pins
- chips specifically designed for video graphics that are used in conjunction with a dedicated GPU
- chips that require constant power to function and are often used for cache memory

17. Which characteristic describes a SIMM?

- **a small circuit board that holds several memory chips and has a 30- or 72-pin configuration***
- chips that require constant power to function and are often used for cache memory
- chips that run at clock speeds of 800 MHz and have a connector with 240 pins
- chips whose contents can be "flashed" for deletion and are often used to store BIOS

18. Which characteristic describes EPROM?

- **a chip that is nonvolatile and can be erased by exposing it to strong ultraviolet light***
- chips that run at clock speeds of 800 MHz and have a connector with 240 pins
- chips specifically designed for video graphics that are used in conjunction with a dedicated GPU
- chips that require constant power to function and are often used for cache memory

19. Which characteristic describes a SIMM?
- **a small circuit board that holds several memory chips and has a 30- or 72-pin configuration***
- SRAM that is internal and integrated into the CPU
- a smaller, more condensed memory module that provides random access data storage, ideal for use in laptops, printers, and other
- devices where conserving space is desirable
- an individual memory chip that has dual rows of pins used to attach it to the motherboard

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21. A technician looks at a motherboard and sees a 24-pin connector. What component would connect to the motherboard through the use of this 24-pin connector?
- **power supply***
- video card
- PATA optical drive
- SATA drive
- floppy drive

22. Which two activities are normally controlled by the Northbridge part of the chipset? (Choose two.)
- communication between the CPU and the I/O ports
- **access to the RAM***
- communication between the CPU and the hard drive
- **access to the video card***
- communication between the CPU and the sound card

  Explanation The Northbridge chipset generally controls access to the RAM, video card, and the speeds at which the CPU can communicate with them.

23. Which two components usually interface directly with the Southbridge chipset on the motherboard? (Choose two.)
- video card
- **USB ports***
- RAM
- **hard drive***
- PCIe slots

Explanation The Southbridge chipset allows the CPU to communicate with the hard drive and USB ports (and other I/O ports). CPU access to RAM, video card, and PCIe slots is provided by the Northbridge chipset.

24. Which statement describes the proper use of an anti-static wrist strap?

- An anti-static wrist strap should not be used in conjunction with an antistatic mat.
- For optimum grounding, the clip should be attached to a painted section of the computer case.
- **An anti-static wrist strap should make contact with the skin.***
- The anti-static wrist strip should not be attached to any grounded object.

Explanation ESD can cause permanent damage to electrical components. An anti-static wrist strap must be worn and grounded when working on a PC. Computer case paints may not be conductive and thus it is better to ground the bare section of a computer case.

25. A technician is building a thick client workstation that would be used to run a database and wants to ensure the best protection against errors. What type of memory would be best suited for this?

- **ECC***
- RDRAM
- DDR3
- DDR2

Explanation RDRAM, DDR2, and DDR3 RAM do not offer any error correction abilities for data within the memory module. ECC RAM allows for the detection of multiple bit errors and correction of single bit errors within the memory modules.

26. Which type of memory is primarily used as cache memory?

- DRAM
- RAM
- ROM
- **SRAM***

27. Which adapter would a technician install in a desktop computer to enable a video signal to be recorded from a video recorder to the computer hard drive?

- video adapter
- TV tuner card
- **video capture card***
- network interface card

Explanation A video capture card enables video to be saved as a file on the computer hard drive from a video recorder. A TV tuner card enables television signals to be received and viewed by the computer. A video adapter enables the computer to display computer output on a screen. A network interface card enables the computer to connect to a data network.

28. Which two storage devices use a magnetic medium for storing data? (Choose two.)

- **tape drive***
- solid state drive
- **hard disk drive***
- blue-ray disk drive
- compact disk drive

> **Explanation** A hard drive, or hard disk drive, is a magnetic storage device that is installed inside the computer. The hard drive is used as permanent storage for data.
>
> A tape drive is a magnetic storage that is most often used for backup or archive data. Magnetic tapes are used to store data via a magnetic read/write head.

29. Which unit of measurement is used to indicate the hard drive speed?

- **revolutions per minute***
- gigabytes
- pages per minute
- clusters per minute

> **Explanation** Revolutions per minute (RPM) is the speed at which the spindle in a hard drive spins. The faster the spindle spins, the faster the data can be retrieved from the platters.

30. What three voltages are commonly provided by the power supply to the various components inside the computer? (Choose three.)

- **3.3 volts ***
- **5 volts***
- 9 volts
- **12 volts***
- 24 volts
- 48 volts

> **Explanation** Computer power supplies typically deliver three voltages to various components inside the computer. These are 3.3 volts for CPUs, 5 volts for motherboard components, and 12 volts for disk drive motors.

31. A customer needs additional storage space on an older computer. What will the technician look at in the computer to determine if an additional hard drive can be added?

- adequate RAM
- an open PCI/PCIe expansion slot
- **an available PATA/SATA connection***
- BIOS version
- the heat that is generated and air flow requirements

> **Explanation** PATA supports two devices per cable. PATA cables sometimes have only one device connector. A new PATA cable could be purchased that had two device connectors. Each SATA device, on the other hand, requires a SATA port and a SATA cable.

32. Which component controls the communications and interactions between the CPU and other components on the motherboard?

- RAM
- BIOS
- CMOS
- **chipset***

  Explanation The chipset controls communication between the CPU and other computer components.

33. Which statement describes a characteristic of GDDR Synchronous Dynamic RAM?
- **It is used in conjunction with a dedicated GPU.***
- It processes massive amounts of data at the fastest speeds.
- It is used for main memory.
- It has a low power consumption and is used for cache memory.

  Explanation GDDR Synchronous Dynamic RAM is specially designed for graphics and is used in conjunction with a GPU.

34. Hard drives in a grocery warehouse keep failing because of vibrations in the warehouse environment. What would be a possible solution for this high failure rate?
- **Install an SSD drive in each computer.***
- Install a more powerful power supply in each computer.
- Install an antistatic mat under each computer.
- Install each computer in a specialized high airflow case.

  Explanation SSD drives are an outstanding choice in extreme temperatures, in unusual environments, and in an environment where there are vibrations.

35. Refer to the exhibit. Which two port types are shown in the graphic? (Choose two.)

- modem
- **network***
- parallel
- serial
- **USB***

  Explanation The port on the left is the USB port. The port on the right is the network port.

36. From which type of data storage does the CPU load information for processing during normal operation?
- SSD
- **RAM***
- ROM
- hard drive

  Explanation RAM is the temporary storage to which data and programs are loaded by the CPU for processing. ROM is read-only memory. Its content will not be altered by the CPU during

normal operation. Both the hard drive and an SSD are data storage devices. The CPU will send data to them for storage or retrieve data from them and load into RAM for processing.

37. Refer to the exhibit. Which type of adapter is shown?

- sound
- RAID
- video
- **network interface***

   Explanation The card that is shown in the exhibit is a network interface adapter with an RJ-45 port which is used to connect the computer to a network via a network cable.

38. Which type of device would be used on a laptop to verify the identity of a user?
- a MIDI device
- **a biometric identification device***
- a touch screen
- a digitizer

   Explanation As biometric identification devices, laptops commonly use a fingerprint scanner or, for facial recognition, a camera.

39. Which two devices are considered input devices? (Choose two.)
- **biometric authentication device***
- printer
- **digital camera***
- projector
- speakers

   Explanation Biometric authentication devices and digital cameras are considered input devices. Speakers, projectors, and printers are all considered as output devices.

40. What is an active cooling solution for a PC?
- Reduce the speed of the CPU.
- Add a heatsink to the CPU.
- **Add an additional case fan.***
- Use a painted computer case.

Explanation Active cooling solutions require power (like adding a case fan) while passive cooling solutions do not.

41. Which tool can protect computer components from the effects of ESD?
- **antistatic wrist strap***
- surge suppressor
- UPS
- SPS

Explanation An antistatic wrist strap equalizes the electrical charge between the technician and the equipment and protects the equipment from electrostatic discharge.

42. Which type of interface was originally developed for high-definition televisions and is also popular to use with computers to connect audio and video devices?
- FireWire
- DVI
- **HDMI***
- USB
- VGA

Explanation High definition multimedia interface, or HDMI, was originally a television standard. However, because it has many digital features, it is also a popular interface to connect audio and video devices to computers.

43. Which statement describes a characteristic of SRAM in a PC?
- It is used as main RAM in a PC.
- It has the highest power consumption.
- **It is used for cache memory.***
- It has a connector with 240 pins.

Explanation SRAM is used for cache memory. It takes a small, but constant source of power to function.

44. A customer has a computer for a home business, but wants to have another computer as a web server. What would be the best solution for the customer to share the monitor, mouse, and keyboard between the two computers?
- access point
- **KVM switch***
- multipurpose device
- network switch
- USB hub

Explanation A KVM switch allows sharing the keyboard, video and mouse between computer systems.

Version 6:

1. What are two factors that must be considered when choosing a computer case? (Choose two.)
- the size of the monitor
- the speed of the memory
- **the number of internal drive locations***
- **the size of the motherboard and the power supply***
- the number of LED indicators at the front of the case

2. A technician looks at a motherboard and sees a 24-pin connector. What component would connect to the motherboard through the use of this 24-pin connector?
- **power supply***
- video card
- PATA optical drive
- SATA drive
- floppy drive

3. What electrical unit refers to the number of electrons moving through a circuit per second?
- **current***
- voltage
- resistance
- power

4. What characteristic of electricity is expressed in watts?
- the amount of work required to move electrons through a circuit
- the resistance to the flow of current in a circuit
- the amount of electrons flowing through a circuit per second
- **the work required to move electrons through a circuit multiplied by the number of electrons flowing through a circuit per second ***

5. Which type of memory is primarily used as cache memory?
- DRAM
- RAM
- ROM
- **SRAM***

6. Refer to the exhibit. Which type of adapter is shown?

- sound
- RAID
- video
- **network interface ***

7. Which component controls the communications and interactions between the CPU and other components on the motherboard?

- RAM
- BIOS
- CMOS
- **chipset***

Explain:
The chipset controls communication between the CPU and other computer components.

8. Which two activities are normally controlled by the Northbridge part of the chipset? (Choose two.)

- communication between the CPU and the I/O ports
- **access to the RAM***
- communication between the CPU and the hard drive
- **access to the video card***
- communication between the CPU and the sound card

Explain:
The Northbridge chipset generally controls access to the RAM, video card, and the speeds at which the CPU can communicate with them.

9. Which unit of measurement is used to indicate the hard drive speed?

- **revolutions per minute***
- gigabytes

- pages per minute
- clusters per minute

> **Explain:**
> Revolutions per minute (RPM) is the speed at which the spindle in a hard drive spins. The faster the spindle spins, the faster the data can be retrieved from the platters.

12. What is indicated by the contrast ratio of a monitor?
- **the difference in the intensity of light between the brightest white and darkest black that can be displayed***
- how often the picture image is refreshed
- the total number of pixels that make up the picture
- the ratio of the horizontal and vertical viewing areas of the monitor

13. What type of connector can be used to connect an internal hard drive to the motherboard?
- USB
- **SATA***
- eSATA
- Thunderbolt

14. Which two factors must be considered when replacing old RAM modules in a PC? (Choose two.)
- The new RAM must be compatible with BIOS or UEFI.
- **The new RAM must be compatible with the motherboard.***
- **The speed of the new RAM must be supported by the chipset.***
- The power supply must provide the voltage that is requred by the new RAM.
- The new RAM must match the old RAM in terms of capacity and speed.

15. Which term is used to define the wires on a motherboard that move data from one part of a computer to another?
- **bus***
- I/O card
- bridge
- chipset

16. When a new PC is being built, which component has the most influence when selecting the case and power supply?
- video card
- sound card
- RAM module
- **motherboard***
- hard disk type

17. What is the function of the power supply?
- **to convert AC power into a lower voltage DC power***
- to convert AC power into a higher voltage DC power
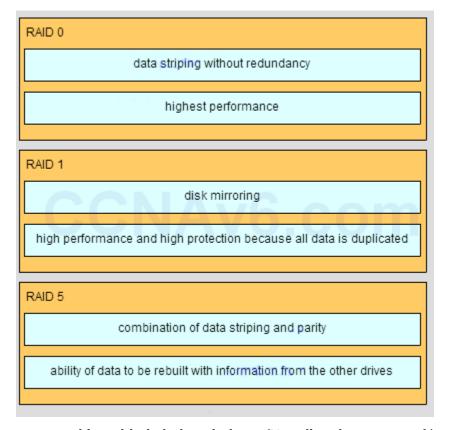- to convert DC power into a lower voltage AC power

- to convert DC power into a higher voltage AC power

18. Which two considerations would be of the greatest importance when building a workstation that will run multiple virtual machines? (Choose two.)

- **amount of RAM***
- **number of CPU cores***
- water cooling
- powerful video card
- high-end sound card

19. A user playing a game on a gaming PC with a standard EIDE 5400 RPM hard drive finds the performance unsatisfactory. Which hard drive upgrade would improve performance while providing more reliability and more energy efficiency?

- a 7200 RPM EIDE hard drive
- a 7200 RPM SATA hard drive
- a 10,000 RPM SATA hard drive
- **an SSD***

20. What three components should be included in a computer that is used to create TV commercials and music videos? (Choose three.)

- extra DIN-6 ports
- **specialized video card***
- extra PS/2 ports
- **large and fast hard drives***
- VGA adaptors
- **specialized audio card ***

21. What are two hardware requirements for computers that will be used to run multiple virtual machines? (Choose two.)

- **large amounts of RAM***
- **a multicore CPU***
- a high resolution video card
- a high speed wireless adapter
- multiple monitors

22. Which memory technology allows two memory modules to be accessed at the same time?

- **dual channel***
- double-sided
- SRAM
- ECC

23. Which security feature in modern CPUs protects memory areas that contain part of the operating system from malware attacks?

- encryption
- TPM
- **execute disable bit***
- LoJack

24. Drag the description on left to its RAID level on the right.

highest performance	RAID 0
disk mirroring	
combination of data striping and parity	
data striping without redundancy	RAID 1
ability of data to be rebuilt with information from the other drives	
high performance and high protection because all data is duplicated	
	RAID 5

Answer

RAID 0

data striping without redundancy

highest performance

RAID 1

disk mirroring

high performance and high protection because all data is duplicated

RAID 5

combination of data striping and parity

ability of data to be rebuilt with information from the other drives

25. Match the ports or cables with their descriptions. (Not all options are used.)
Question

VGA	connects a keyboard or a mouse to a computer
BNC	multimedia interface initially developed for TV
PS/2	connector for audio, video, and power in security cameras
HDMI	connector for analog video
Thunderbolt	connector for coaxial cables
	connects to devices using the Mini DisplayPort adapter

Answer

PS/2
HDMI
connector for audio, video, and power in security cameras
VGA
BNC
Thunderbolt

Older Version

26. Which three devices are considered output devices? (Choose three.)

- **headphones***
- keyboard
- fingerprint scanner
- **monitor***
- mouse
- **printer***

27. Which hardware upgrade would allow the processor in a gaming PC to provide the optimal gaming performance?

- a fast EIDE drive
- **large amounts of fast RAM***
- liquid cooling
- a high capacity external hard drive

28. Which two storage devices use a magnetic medium for storing data? (Choose two.)

- **tape drive***
- solid state drive
- **hard disk drive***

- compact disk drive
- blue-ray disk drive

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Explain:
A hard drive, or hard disk drive, is a magnetic storage device that is installed inside the computer. The hard drive is used as permanent storage for data.

A tape drive is a magnetic storage that is most often used for backup or archive data. Magnetic tapes are used to store data via a magnetic read/write head.

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29. Which two pieces of information are needed before selecting a power supply? (Choose two.)
- **the total wattage of all components***
- the voltage requirements of peripheral devices
- **the form factor of the case***
- the type of CPU
- the installed operating system

30. Which memory module has a front side bus speed of 200 MHz?
- DDR3-667
- PC100 SDRAM
- **DDR-400***
- DDR-333

31. Refer to the exhibit. Which type of video card expansion slot is depicted?
- PCIe
- ISA
- PCI
- **AGP***

32. What type of connector can be used to connect an eSATA interface to an external SATA drive?
- **7-pin connector***
- 9-pin connector
- 15-pin connector
- 5-pin connector

33. Where can the input voltage selection be changed from 110 volts to 220 volts on a computer system?
- on the motherboard
- in the BIOS
- **on the back of the power supply***
- in the operating system control panel

34. Refer to the exhibit. Which type of cable is shown in the graphic?
- USB
- parallel

- FireWire
- **serial***