

System Hardware Fundamentals Exam Questions & Answers

1* High humidity and dust can cause what type of problem?

- Power supply overheating
- Electro static discharge
- Electrical current bleeding around the chips causing short circuits
- Direct AC voltage will be applied to the motherboard

2* Which of the following ports is MOST likely used for high-end graphic cards?

- PCI
- PCIe
- ISA
- AGP

3* A technician is dispatched to install additional RAM in a computer. The technician unplugs the system from the power source, and removes the cover of the oc. Which of the following should the technician do NEXT?

- Upgrade the BIOS for compatibility
- Put ESD straps
- Use an anti-static bag to hold the RAM while installing
- Clean out the PC with compressed air

4* A technician needs to replace a computer's hard drive. Which of the following should the technician do first?

- Remove network connections
- Remove RAM
- Self ground on the computer case
- Disconnect power to PC

5* A PC cannot connect to the network. A network card was purchased without documentation or driver discs. Which of the following is the best way to install it into this machine?

- Download and install the drivers
- Run windows update to install drivers
- Copy drivers to flash drive and install
- Purchase the disc online and install

6* You bought a Hard Disk drive with storage capacity of 1TB(decimal), your computer will detect it as:

- 931.32262 GB
- 951.128 GB
- 890 GB
- 1024 GB

7* A military member has just returned to the United States from Europe and reports their personal desktop computer does not work. Which of the following is the MOST logical solution of this problem?

- The computer is unable to work in US because of EU licensing arrangements
- The power supply needs to be replaced with one rated for 110 Watts
- The power supply needs a power inverter to handle the change in cycles
- The power supply voltage needs to be switched to 110 from 220

8* Which of the following should be completed NEXT, after testing the theory of probable cause?

- Verify full system functionality
- Implement preventative measures
- Establish a plan of action to resolve the problem
- Implement the solution to the problem

9* the BIOS settings on a gaming laptop shows the current CPU speed at 3.5GHz. The default speed specifications of the CPU is 3.2GHz with Front Side Bus at 800MHz and locked CPU multiplier at 4x. Which of the following speed settings needs to be changed in the BIOS in order to run the CPU on it's default frequency?

- RAM CAS latency
- FSB
- FSB to CPU ratio
- Multiplier

10* A customer has a question about the repairs needed for their desktop computer. While asking their question to a technician, the technician receives a personal phone call on the cell phone. Which of the following should the technician do NEXT?

- Ask the customer to wait and answer the phone call
- Talk on the phone while listening to the customer
- Hand the phone to a coworker to answer the call
- Silence the phone and then listen to the customer

11* Which of the following is the Maximum transfer speed of USB 3.0?

- 1 Gbps
- 4 Gbps
- 5 Gbps
- 8 Gbps

12* Moving your CPU's speed beyond it's normal operating range is called:

- Overclocking
- Overdriving
- Overpowering
- Overspeeding

13* Which of the following devices would MOST likely to require a serial adapter to be installed?

- External modem
- TV tuner
- Mouse
- Keyboard

14* What would you set a multimeter to if you wanted to detect an AC ripple?

- DC capacitance
- AC Voltage
- DC Voltage
- Ac resistance

15* Which of the following characteristics is true of a PCIe x8 card?

- It can only use IRQ8
- It uses eight memory addresses for storage of data
- It has eight lanes by which data is transmitted
- It has eight times the bandwidth of a standard PCI card

16* Why would the on a laptop get dimmer when the power supply from the AC outlet is disconnected?

- The laptop cannot use full brightness when on battery power
- Power management settings on the laptop
- To operate properly, laptop displays require an alternating current power source
- Security setting on the laptop

17* Which of the following BIOS settings is MOST likely to speed up the boot process when disabled?

- IDE Auto Detect
- BIOS Administrator Password
- Advanced Configuration and Power interface
- Plug and Play

18* Which port is typically known as a serial port?

- DVI
- COM1
- LPT1
- SCSI

19* After hardware upgrades have been installed, the technician boots the computer system. No display output is observed but a beeping sound is heard. Which of the following is the MOST likely the issue?

- Hard drive cables are not connected
- BIOS chips are not seated properly
- The power supply is not functioning
- Video card is not seated properly

20* Which type of RAM is better used as Cache memory?

- Dynamic RAM
- SDRAM-DDR3
- Static RAM
- SODIMM

21* Which bus slot provides the highest performance?

- PCI
- SCSI
- AGP
- PCIe

22* Which of the following would BEST provide cooling to a processor?

- Case fan
- Heatsink
- Liquid cooling system
- CPU fan

23* The last step in resolving an end user ticket should be which of the following?

- Create an incident record
- Verify the problem is resolved
- Document the solution
- Notify the user the problem is resolved

24* Which of the following is enabled in the BIOS that will prompt a user to enter their password every time the laptop performs a POST?

- Power User access
- Power on Password
- Administrative password
- User profile access

25* A customer's computer crashes consistently when a specific application is launched. The technician has looked at the computer and confirmed the cause of the crash. Which of the following is the NEXT troubleshooting step and technician should take?

- Verify full system functionality
- Document the findings, actions, and outcomes
- Establish a plan of action to resolve the problem
- Question the user and identify changes the user has made to the system

26* A user has forgotten their BIOS password on their computer, which of the following would a technician use to allow the user access to their PC?

- Remove the BIOS chip on the PC
- RE-flash the BIOS
- Run password cracking software on the user's PC
- Set the password clear jumper on the motherboard

27* A technician would like to load an operating system CD on startup. Which of the following would a technician change in BIOS?

- Enable TPM
- Enable BIOS password
- Disable TPM
- Boot sequence

28* If your CMOS battery fails, the following symptoms will appear:

- Your computer won't boot
- A "Non bootable device" will appear
- All CMOS configurations will reset
- PCIe slot won't function properly

29* What will happen when shadowing is enabled in a computer's BIOS?

- Full backup on Hard disk drives
- Operating system will be fully redundant
- BIOS will provide multiple additional options
- Instructions stored in various ROM chips are copied into extended memory

30* Which of the following is the only place where initial boot setting can be configured?

- CMOS
- BIOS
- MBR
- HAL

31* A technician is not able to boot Windows OS. A "Non bootable device found" message appears on the screen when the computer restarts. Which of the following is the MOST possible cause of the error message?

- MBR is corrupt on the HDD
- HDD is set to cable select
- The operating system is corrupt
- A bootable HDD is not recognized in the BIOS

32* Which of the following components is MOST important when building a gaming PC?

- File sharing
- TV tuner
- Media streaming
- High-end video card

33* Which of the following are components of an "active" CPU cooling solution?

- A Heatsink and thermal compound
- A Heatsink, radiator, and thermal compound
- A Heatsink, attached fan and thermal compound
- A Heatsink, case fan and, thermal compound

34* Which of the following processing types allows two instructions to be processed simultaneously apart?

- Quad Core
- Triple Core
- Dual Core
- Hyper-threading

35* If the South-Bridge got defected, the CPU won't communicate with:

- Ram and BIOS
- PCIe and BIOS
- AGP and PCI
- USB and PCIe

36* A technician has had several support requests for one PC. The technician has reseated the PCI cards and replaced the hard drive in the PC located in a school kitchen cafeteria. PCs located in the business office or in the classroom have not had this issue. Which of the following is the MOST likely causing the PC's issue?

- Faulty RAM
- 240 Volt kitchen outlets
- power Brownouts
- excessive heat

37* Which of the following provides the BEST solution for the customers needing quite cooling options?

- Side panel slots
- Liquid based
- Additional fans
- Thermal paste

38* Which of the following would BEST protect hardware from dust and ESD storing it for future usage?

- Air filter
- Anti-static bags
- Compressed air
- Paper bag

39*When a power supply does not meet minimum requirements for a motherboard, which of the following can happen?

- Computer will not POST
- Computer will overheat
- Monitor will not power on
- Processor will not run at proper speed

40* 500 MB in decimal storage can be calculated in binary as :

- 0.465 GB
- 1.218 GB
- 3.314 GB
- 300 MB

41* Which of the following passive cooling methods BEST dissipates a component's heat?

- Heatsink
- Fan
- Liquid cooling
- Compressed air

42* Which of the following tools could a person use to test an AC outlet? (Select the two best answers):

- Multimeter
- PSU tester
- Receptacle tester
- Loopback plug

43* Which of the following is not a configuration that can be made in the BIOS?

- Boot sequence
- Temperature thresholds
- Overclocking
- Install drivers
- Intrusion detection

44* Which of the following controls communicate between the CPU and the PCIe x16?

- Northbridge
- Power supply
- Memory
- Memory controller

45* If your bandwidth is 1000 Mbps, how many bits are you sending/receiving? (Select the two best answers)

- 100,000,000 bits per minute
- 1000 bits per second
- 1,000,000,000 bits per second
- 1 gigabit per second

46* Which of the following will provide the best protection against power cut and data loss?

- Auto-switching power supply
- Uninterrupted power supply
- Line conditioner
- Surge suppressor

47* Which tool do you use to test a 24-pin ATX 12v power connector?

- Receptacle tester
- Voltmeter
- Tone and probe kit
- Resister

48* Which of the following statements about PCIe is not true?

- A PCIe will accommodate a PCI card
- PCIe is capable of being faster than AGP
- PCIe uses one or more lanes to communicate along the bus
- Each PCIe slot has the same length

49* Which motherboard form factor dissipates heat best?

- ATX
- BTX
- NLX
- LPX

50* Which of the following is not a speed level for PCIe?

- 1x
- 2x
- 3x
- 4x

51* Which of the following components facilitates communication between CPU and memory?

- BIOS
- Memory controller
- North-bridge
- Interrupt controller

52* All the following statements about CMOS are true except:

- The CMOS chip is so named because it's the only chip manufactured by that processor
- The CMOS requires a battery to keep its contents when the computer is turned off
- The CMOS holds alternations to the default BIOS settings
- Resetting the BIOS to the factory default erases the CMOS

53* The output voltages of a PC power supply are the following:

- 3V 5.5V 12V
- 2V 8V 12V
- 3.3V 5V 12V
- 5V 8.8V 12V

54* Which of the following statements about personal computer is not accurate?

- Most computers today are modular
- Each component in a computer has a specific function
- The primary circuit board in a personal computer is called motherboard
- There is only one device in the market for each specific function within a personal computer

55* Which of the following memory module is a DDR3?

- PC-3200
- PC-4800
- PC2-5300
- PC3-8000

56* A memory type typically used in high-end workstations and not generally found a consumer grade PCs is:

- DDR3
- ECC
- PC2-6400
- DDR2-667

57* When you change your CPU active heat sink to a new one, we fill air gaps using:

- Alcohol
- Aluminum
- Thermal grease
- Gas

58* Bus clock multiplier in DDR3 is:

- 8
- 3
- 4
- 6

59* You have a DDR3 RAM working on 800 MHz, what is it's peak data rate?

- 12.8 GB/S
- 51.2 GB/S
- 56.8 GB/S
- 50 GB/S

60* What kind of memory is very fast, but very expensive and takes a lot of space?

- DDR4
- Static RAM
- Dynamic RAM
- Rambus RAM