**Interview questions for hardware and networking:**

**1. RS-232 is a standard that applies to:**

\*a. serial ports

b. parallel ports

c. game ports

d. networks

e. digital frequencies

**2. Comm ports use: (select all that apply)**

\*a. 9 pin male connector

b. 14 pin female connector

\*c. 25 pin male connector

d. edge connector

e. parallel connector

**3. Before a modem transmits, it send a:**

\*a. RTS

b. DTR

c. DSR

d. RQS

e. TRX

**4. RTS stands for:**

a. ready to start

b. ready to switch

\*c. request to send

d. request to scan

e. ready to set

**5. In modem terminology, CD stands for:**

a. collect data

b. call data

c. cease deliver

\*d. carrier detect

e. comm detect

**6. UART is a type of serial chip. Its letters stand for:**

a. unidirectional access regarding transmission

\*b. universal asynchronous receiver/transmitter

c. upper advanced real transfer

d. unable all restore t-bits

e. use all rom types

**7. Select all true statements:**

\*a. com1 and com3 share the same IRQ

b. com1 and com4 share the same IRQ

c. com2 and com3 share the same IRQ

\*d. com2 and com4 share the same IRQ

e. com1 and com2 share the same IRQ

**8. In modems that support more than 300 baud, baud and bps do not mean the same thing.**

\*a. true

b. false

**9. "bps" stands for bits per second. Baud is the number of discrete signals per second. One discrete signal can encode more than one bit. Hence, a 9600 bps modem actually operates at 2400 baud. However, in common non-techie terminology, baud and bps are used synonymously, though that is not technically correct. These are all true statements.**

\*a. true

b. false

**10. \_\_\_\_\_\_\_\_ is the term used to refer to the process of two modems establishing communications with each other.**

a. interacting

\*b. handshaking

c. connecting

d. linking

e. pinging

**11. ISDN stands for:**

a. internal select data nulls

\*b. integrated services digital network

c. interval set down next

d. interior sector direct none

e. inferior sector data net

**12. Your modem does not respond when you try to dial out. You try another modem on another computer and get the same result. What is the most likely problem?**

a. defective modem

b. defective computer

c. software bug

\*d. bad phone line

e. virus

**13. You have a serial scanner connected to your computer configured to use com3. It is turned on. Your modem is using com1, and you can't dial out. What is the most likely problem?**

a. everything should work ok

b. you have an i/o conflict

\*c. you have a conflict with IRQ 4

d. you have a loose connection

e. you have a conflict with IRQ 3

**14. What is the i/o address for com1?**

a. 3e8

b. 3bc

c. 5f8

\*d. 3f8

e. 008

**15. What is the i/o address for com2?**

a. 2vb

\*b. 2f8

c. 8f8

d. 330

e. e8e

**16. What is the i/o address for com3?**

\*a. 3e8

b. 345

c. ff8

d. 5e8

e. be8

**17. What is the i/o address for com4?**

a. 4e7

b. e8e

c. be0

d. cb8

\*e. 2e8

**18. Before sending data, a modem sends a request to send signal, or RTS.**

\*a. true

b. false

**19. ISDN uses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ technology.**

\*a. only digital

b. digital and analog

c. only analog

d. neither digital nor analog

e. mostly digital

**20. A COM port is a \_\_\_\_\_\_\_ port.**

a. parallel

\*b. serial

c. static

d. multi

e. scsi

**21. Modems use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ transmission.**

a. synchronous

\*b. asynchronous

c. timed interval

d. ata

e. bank

**22. CD-ROMs typically hold \_\_\_\_\_\_ of data.**

a. 100 meg

b. 500 meg

\*c. 650 meg

d. 1000 meg

e. 350 meg

e

**23. The terms "red book", "yellow book", and "orange book" refer to:**

a. scsi

b. ide

c. floppy drive technology

\*d. CD-Rom standards

e. none of the above

**24. CD-Roms are read by \_\_\_\_\_\_\_\_\_.**

a. magnetic heads

b. electronic sensors

c. stepper motors

\*d. laser diodes

e. titanium servos

**25. Which of the following can cause CDs to be misread? Select all that apply.**

\*a. smudges

\*b. finger prints

\*c. scratches

\*d. cracks

\*e. slight melting

**26. CD-Rom drives typically have which of the following interfaces? Select all that apply.**

a. serial

\*b. parallel

\*c. ide

\*d. scsi

e. esdi

**27. CD-Rom drives have which connectors? Select all that apply.**

\*a. molex

b. berg

\*c. data cable

\*d. audio cable

e. arcnet

**28. In a computer with an eide adapter, where should you connect an ATA CD-Rom drive?**

a. on the floppy bus

b. on the primary ide

\*c. on the secondary ide

d. on the scsi bus

e. none of the above

**29. Your IDE CD-Rom drive is attached to the primary IDE adapter with your hard drive. How should its jumpers be set?**

a. as a master

\*b. as a slave

c. as neutral

d. auto detect

e. to 001

**30. What does MSCDEX.EXE do?**

a. configures hard drives

b. it's a scsi driver

c. bios setup

\*d. It's a CD-Rom DOS driver

e. nothing, I just made it up

**31. A CD-Rom drive always uses IRQ:**

a. 9

b. 10

c. 11

d. 5

\*e. depends on the adapter it's attached to

**32. If a computer's bios allows it, you can boot from a CD-Rom.**

\*a. true

b. false

**33. A single speed CD-Rom drive transfers data at:**

a. 1 MB per second

b. 100 bytes per second

c. 20 million bits per second

d. 186,282 bits per second

\*e. 150 KBs per second

**34. Your CD-Rom audio cable connects to the:**

a. speaker

\*b. sound card (or motherboard if sound is integrated with it)

c. power supply

d. hard drive

e. bios

**35. This statement is in autoexec.bat:**

c:\dos\cdrom\mscdex /d:cdrom001 /l:e /m:10 /v

This statement is in config.sys:

device=c:\cdrom\atapicd.sys /d:cd001

Your CD-Rom drive is not working. What is wrong?

a. the "v" switch in autoexec.bat is invalid

\*b. the device name is not the same in both files

c. the "m" switch in autoexec.bat is set too high

d. config.sys is not using the dos directory

e. nothing, it should work

**36. Which of the following are SCSI issues? Select all that apply.**

\*a. unique id settings

\*b. limited cable length

\*c. parity

\*d. passive termination

\*e. active termination

**37. On some older SCSI adapters, the boot hard drive must be set to id#: (as a side note, some of the older IBM SCSI PCs had to have the boot hard drive set to id 6, but this question deals primarily with most other PC makes and clones)**

a. 2

b. 3

\*c. 0

d. 9

e. 11

**38. You have a PC with a SCSI adapter built into the system board. It has only one connection (internal), which is used for your hard drive, CD-Rom drive, and tape drive. Your boss wants to connect a SCSI scanner to the PC, so you install a SCSI adapter with an external connection to support the scanner. Now you have a PC with two SCSI adapters. SCSI adapters normally use id# 7, which the onboard adapter is set for. The adapter you installed should: (select all that apply)**

a. use a different id

\*b. use id 7 also

c. not use an id

\*d. use a different IRQ

e. be checked for fleas

**39. You run a super wing-ding diagnostic program on your PC, and it reports that your hard drive, microprocessor, ram, and video card have seen better days. To resolve this problem you should:**

a. replace each part one at a time, rerunning the diagnostic before replacing the next part.

\*b. check to see if you have a software problem

c. replace everything at once and rerun the diagnostic

d. get another copy of the diagnostic program

e. run an exhaustive memory check

**40. Whenever you have a hardware resource conflict, it will more likely be an IRQ conflict rather than an i/o conflict because:**

\*a. there are alot more i/o addresses than IRQs.

b. the bios sometimes has more of a problem controlling IRQs

c. i/o addresses cannot conflict

d. software tends to correct i/o conflicts

e. software tends to mess up IRQs

**41. SCSI adapters usually don't need drivers, just the devices that interface with them.**

a. true

\*b. false

**42. Most SCSI-2 devices will work fine with SCSI-1 adapters.**

\*a. true

b. false

**43. Single-ended SCSI or "regular" SCSI has one wire for each signal that needs to be sent along the SCSI bus. Differential SCSI has two wires for each signal that is sent. Differential SCSI cable lengths can be up to 25 meters. How long can single-ended SCSI cables be?**

a. up to 50 meters

b. up to 100 meters

\*c. up to 6 meters

d. up to 14 meters

e. up to 3 meters

**44. Your PC has both internal and external SCSI devices connected to one SCSI host adapter. Which devices should be terminated? Select all that apply.**

\*a. the last internal device on the chain

\*b. the last external device on the chain

c. the host adapter

d. the host adapter and one external device

e. the PC

**45. How many devices can connect to the typical SCSI adapter? Assume is has only one data connector.**

\*a. 7

b. 8

c. 20

d. 10

e. depends on whether both internal and external devices are used

**46. How many devices can be used on a single SCSI bus? Keep in mind that the SCSI host adapter counts as a device.**

a. 7

\*b. 8

c. 20

d. 10

e. see number 54

**47. What is the jumper setting on a SCSI device to configure it to use the fourth SCSI id? Remember, SCSI ids start with zero.**

a. 010

b. 110

\*c. 011

d. 101

e. 001

**48. Which type of interface provides for the fastest data transfer?**

a. IDE

\*b. SCSI

c. parallel

d. serial

e. ISA

**49. In addition to i/o port addresses, SCSI adapters also use a range of rom addresses for their onboard bios.**

\*a. true

b. false

**50. SCSI-2 cables have how many pins?**

a. 40

b. 25

\*c. 50

d. 72

e. 100

**51. IDE cables have how many pins?**

a. 25

b. 50

c. 100

\*d. 40

e. 65

**52. You are about to install a second IDE hard drive in a PC that has only one IDE adapter. Your first hard drive will still be the boot drive. How should the second drive be configured?**

a. as a master

b. as a secondary

\*c. as a slave

d. as a primary

e. as auto-select

**53. What is the maximum number of IDE drives that EIDE will support?**

a. 15

b. 3

\*c. 4

d. 2

e. 0

**54. You are installing an IDE hard drive that will be your boot drive.**

**Which is the correct order of steps that need to be followed?**

a. jumper properly, auto-detect(or configure manually) in cmos, low level format, high level format, partition

\*b. jumper properly, auto-detect(or configure manually) in cmos, partition, high level format with /s switch

c. jumper properly, partition, auto-detect(or configure manually in cmos, high level format with /s switch

d. jumper properly, auto-detect in cmos, regular format

e. jumper properly, partition, low level format, high level format

55. You are installing a SCSI hard drive that will be your boot drive.

**Which is the correct order of steps that need to be followed?**

a. jumper for id 0, cmos setup, low level format, high level format

b. set id jumpers to all zeros, high level format, partition

\*c. set id jumpers to all zeros, partition, high level format

d. jumper for id 0, cmos setup, partition, high level format

e. set id jumpers to all zeros, high level format, partition

**56. On a flat data cable, a red or blue stripe means:**

a. ground

b. high voltage

c. null connection

\*d. pin 1

e. that it's an IDE or SCSI cable

**57. Which of the following would be considered an FRU? Select all that apply.**

\*a. hard drive

\*b. system board

\*c. ram

d. DMA controller

\*e. level 2 cache simm

**58. Which of the following would not be considered an FRU?**

a. hard drive

\*b. IRQ controller

\*c. any soldered IC

d. floppy drive

e. system board

**59. You have a system that periodically locks up. You have ruled out software, and now suspect that it is hardware. What should you do first that could help you narrow it down to the component at fault?**

a. rotate the ram

b. replace the ram

c. replace the level 2 cache simm

\*d. disable the CPU cache in cmos

e. replace the CPU

**60. You have a PC with no video on a known good monitor. Pick the best order you should follow in tracking down the problem.**

a. replace the video card, replace the monitor, replace the power supply, replace the system board, try a different monitor

\*b. check that PC and monitor are plugged in, check that monitor brightness is turned up, check that PC fan is running, remove all option cards

c. check PC supply voltages, replace video card, replace CPU

d. check that everything's plugged in, replace system board

e. check that everything's plugged in, replace hard drive, replace ram

**61. Most PCs give a single beep on bootup to indicate they are ok hardware wise. You boot your PC and don't get a beep. What should you check first?**

a. system board

b. ram

c. microprocessor

d. power supply

\*e. speaker

**62. What beep codes could indicate a system board or power supply failure? Select all that apply.**

\*a. steady short beep

\*b. no beep

\*c. one long continuous beep tone

\*d. steady long beeps

e. one long, two short beeps

**63. Your PC is continuously rebooting itself. Select all of the following that could be causing the problem**.

\*a. bad PC power supply

\*b. faulty power at AC outlet

\*c. bad system board

\*d. defective adapter card

\*e. corrupt operating system

**64. You have an old PC that you decide to upgrade with a 1 gig IDE hard drive. You find that you can't configure cmos to see the entire hard drive. The best you can do is 540 meg. What is the fix?**

a. get a newer PC

b. manually input the sectors, cylinders, and heads of the hard drive

c. put multiple partitions on the hard drive

d. make the bios think it's a SCSI drive

\*e. use a device driver that makes the bios see the drive as simply a block storage device, or upgrade the bios if possible

**65. A sound card typically uses which IRQ?**

a. 6

\*b. 5

c. 15

d. 1

e. it doesn't use an IRQ

**66. Your IDE hard drive is not spinning up when you turn on the PC. What is the most likely problem.**

a. bad data cable

b. incorrect jumper setting on drive

\*c. loose molex connector

d. virus

e. bad system board

**67. You have a PC with no video. Which of the following is LEAST likely to be causing the problem?**

a. defective ram (bank zero)

b. defective microprocessor

\*c. crashed hard drive

d. loose video card

e. low AC outlet power

**68. I once had a PC with no video. I replaced the system board, CPU, and video card, and still had no video. I then replaced the IDE cable and fixed the problem. Am I telling the truth?**

a. no, you're just pulling everyone's leg

\*b. you betcha!

**69. A virus can mimick just about any hardware symptoms you can think of.**

\*a. true

b. false

**70. A static jolt of as little of \_\_\_\_ volts can fry most any PC integrated circuit.**

a. 200

\*b. 30

c. 1000

d. 200

e. 500

**71. A human cannot feel a static discharge as high as \_\_\_\_ volts.**

\*a. 200

b. 2000

c. 10000

d. 50000

e. 50

**72. ESD is \_\_\_\_\_\_\_\_\_\_\_.**

a. electronic stasis device

\*b. electrostatic discharge

c. electric surge device

d. electronic system driver

e. forget it, I can't think of any more words for these letters

**73. What's the best way to prevent damaging your PC with static electricity?**

a. place your PC on a rubber mat

b. wear leather soled shoes

c. periodically touch a safe ground point on the PC to discharge yourself

d. static electricity doesn't really hurt a PC

\*e. wear an ESD wrist strap

**74. What is EMI? (uh, oh - here we go again)**

a. electro-magnetic interference

b. electronic maintainence inquiry

c. that's it! it's answer a

**75. You're on your PC at midnight and an electric storm pops up. What's the best way to protect your PC.**

a. you don't worry; you have a lightning rod on your house

b. you don't worry; you've got a surge protector on your PC

c. you don't worry; you've got a surge protector on your PC and phone line to your modem

\*d. unplug the PC and remove phone line from the modem

e. stop standing on it

**76. Something as small as a \_\_\_\_\_\_\_\_ on a drive platter can cause your hard drive to crash. Select all that apply.**

\*a. human hair

\*b. dust particles

\*c. finger print

d. a .001 micron high imperfection

\*e. accumulation of smoke particles

**77. When your hard drive crashes from any of the correct selections in the question above, or from dropping it, it is known as head-to-disk interference, or HDI.**

\*a. true

b. false