Quiz on P C HARD WARE

1. **Inside parts of a computer are :-**
   - **Mother board**
   - **RAM**
   - **Processor**
   - **Storage devices**
   - **SMPS**

2. **Mother board consists of :-**
   - **CPU**
   - **BIOS**
   - **Memory**
   - **Mass storage interfaces**
   - **Serial and parallel ports**
   - **Expansion slots**

3. **Mother board consists of controllers required to control standard peripheral devices such as display screen , keyboard and disk drive**

4. **The mother board contains the connectors for attaching additional boards**

5. **PCI SLOT -> Peripheral component interface**

6. **AGP SLOT ->Advanced graphics port**

7. **IDE -> Integrated drive electronics**

8. **Mother board circuit ports are expansion slots**
   - **CPU SOCKET**
   - **Chipset**
   - **RAM banks**
   - **BIOS ROM**
   - **IDE controller / connector**
   - **Floppy drive connector**
   - **LED connectors**
   - **Ports**
   - **Mother board power supply connectors**

9. AGP slot / bus has data transfer speed of 66 Mhz at 64 bits and the total data

Transfer rate is 66 X 64 Mbps

10. CPU slot /socket type is socket 7 PGA 370, or PGA 478 or LGA 775

11. Chipsets are from Intel

12. No of pins for SDRAM expansions slots is 168

13. No of pins for DDR RAM expansion slots are 184

14. One of the most common uses of flash memory is for BIOS of your Computer

15. Bios makes sure all other chips hard drives ports and CPU function together

16. The No of pins for IDE interface is 40 (Blue color)

17. IDE cable is a flat ribbon cable

18. No. of pins for floppy drive interface is 34

19. Ports means lots of external devices can be connected to the computer.

20. PS/2 port ←--→ key board, Mouse

21. Ethernet port ←--→Network

22. USB port ←--→ Pen drive digital camera etc

23. Serial port ←-- → Dial up modem

24. VGA Port ←→ Monitor

25. LPT 1 Port ←----→ printer port

26. Audio:- Speaker port Line in Micro phone

27. Game port :- Joy stick

28 ATX Power supply connectors & AT power supply connection

29. Processor: - Intel core 2 duo, Intel core - 2 quad

30. DRAM: - Dynamic Random Access memory

31. DRAM: - Can access one block of data at a time

32. EDORAM: - Extended Data Out Dynamic RAM

33. EDORAM:- Starts fetching the next block of memory at the same time it sends the previous block to the CPU

34. MDRAM :- Multi bank DRAM

35. MDRAM utilizes small banks of DRAM (32KB each) in one array

36. Each bank has its own I/O Port that feeds into a common internal bus

37. SDRAM :- Synchronous DRAM
SDRAM actually synchronizes with the CPU Bus and is capable of running at 133MHz

38. DDR RAM :- Double Data Rate Synchronous RAM

39. DDR RAM supports data transfers on both the edges of each clock cycle (the running and falling edges) effectively doubling the memory chip's data through put

40. DDR SDRAM :- Consumes less power, so useful for Notebook computers

41. SGRAM :- Synchronous Graphic RAM . Used for video adapters and graphic accelerators

42. SGRAM can synchronize itself with the CPU bus clock up to speeds of 100 MHz

43. SGRAM Uses Masked writes and block writes to increase bandwidth.

44. VRAM :- Video RAM

45. Assembling a Computer :-

(1) Install Motherboard
(2) Install Processor
(3) Install CPU Cooler
(4) Install RAM
(5) Install Expansion cards
(6) Install Hard Drive
(7) Install Auxiliary Drives
(8) Install Panel Connectors
(9) Firing it up.

46. The interfaces for Hard Disk are :-

- **PATA → Parallel ATA**
- **SATA → Serial ATA**
- **SAS → Serial Access SCSI**
- **SCSI → Small Computer System Interface**

47. Cache MB will be 2 / 8 / 16

48. Spin speed of Hard Disk is 7200 RPM

49. Capacity of Hard Disk : 40/80/160/250/300/400 GB

50. Pocket Hard Drive capacity can go upto 500GB

51 .Pocket Hard Drive Spin speed :- 3600 RPM

52. Total Data Transfer Rate =
Data Transfer Speed in MHz X No. of bits in Mbps

53. XP, Windows 2000 offer two types of disk storage :- Basic and Dynamic

54. Basic Storage uses normal partition tables supported by XP, Windows 2000 ,etc

55. A basic disk contains basic volumes, such as primary partitions and logical Drives and extended partitions.

56. A dynamic disk contains dynamic volumes such as simple volumes, Spanned volumes , stripped volumes and RAID-5 volumes.

57. A Volume is a storage unit made from free space on one or more disks. It can be formatted with a file system and assigned a drive letter.

58. DMA Channel :- It is used for data transfer between floppy to and from memory.

59. Disk Controllers convert parallel data into serial for writing to device or convert Serial data from floppy to parallel for CPU.

60. Stepper motor is used to move the heads in step from one track to another

61. Spindle motor :- Here floppy gets seated and moves.

62. Logic card :- To control the operations of FDD.

63. Disk controller controls the spindle motor

64. Common faults :-
Disk drive not ready → Not mentioned in CMOS set up.

65. Light glows permanently → Logic card is bad ; Floppy cable is reversed.

66. LED does not glow even once during POST → Signal cable bad or FDC bad.

67. No LED glows when M/C is switched on for key board → Check +5 V on pin 5 of cable connecter or check cable continuity or IC faulty.

68. When one key does not operate →
Check switch or check the track or check the pulling resistor

69. Types of computer networking are
1. **Client / server network**
2. **Peer to peer network**

70. Servers :- controls the client computer

71. Peer to peer networks have work stations connected to each other but do not have servers.

72. Peer to peer network is a set up among a few computers within an office.

73. Server types are WIN NT/ 2000 – 2003, UNIX/LINUX and Netware

74. Client :- Win 90/Xp, Win NT / 200, Linux , DOS.

75. NIC :- Ethernet :-Simple Ethernet Fast Ethernet :- Gigabyte Ethernet

76. Transmission media :- Twisted pair :- Cat 6 _ Cat 5:- Coaxial cable :- thick thin:- Fiber optic:-

77. Topology:- Ring, star, bus.

78. Connectors :- BNC , T , RJ -45 , Terminator

79. Protocol :- TCP / IP, IPX / OD I , NET BUEI

80. Interfaces :- NET BIOS

81. Other devices:-

- **HUB**
- **Switches**
- **Router**
- **Bridges**
- **Boaters**
- **Repeaters**
- **Gate ways**

82. Simple Ethernet:-

10 base -5- (thick coaxial cable)

10 base- 2 – (Thin coaxial cable)

10 base – T – (Twisted pair)

10 base – F (Fiber)

83. Fast Ethernet:-

100 base – T 4 (Twisted pair { 4 pair})

100 base TX (Twisted pair { 2 Pair })

100 base FX (Fiber)

84. Current Ethernet networks are available in either 10 Mbps or 100 Mbps.

85. Gigabit Ethernet (1000 Mbps) is available on fiber coaxial cable and supports CSMA / CD Protocol.

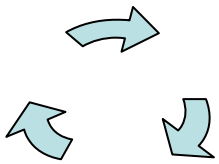
86. Volume of data that can be transferred across a network at a given time is called <u>Bandwidth.</u>

87. Bandwidth is dependent on

- **Types of network cards**
- **Modems**
- **Amount and**
- **Types of cables used**

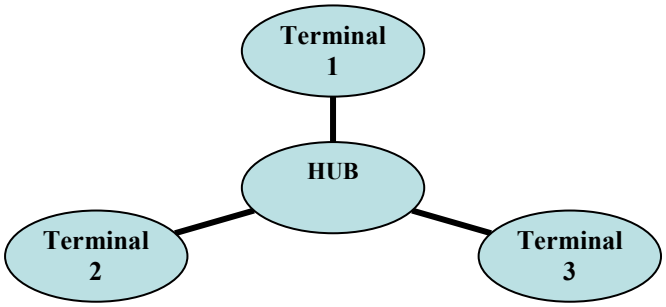
88. The way in which the computers are connected together to form a network has a large effect on its speed and efficiency

89. In ring topology one computer is with printer and is called <u>print server</u>



90. It handles printing jobs on the network

91. In star topology each computer terminal is attached directly to the central computer through a special junction box called HUB



92. In bus topology if you want to send a message from computer A to Computer B then all the computers will receive the message.

93. The OSI reference Model →

Physical layer → Data link layer → Network layer →
Transport layer → Session layer →
Presentation layer → Application layer

94.

Bits	**←→**	**Physical layer**
Frames	**←→**	**Data link**
Packets	**←→**	**Network**
Segments	**←→**	**Transport**
Data	**←→**	**Session, Presentation, Application**