**Module 1 - Introduction to Personal Computer Hardware**

1.1.1.1

1 According to the video, what does a computer do? (Read the transcript if needed.)

2 What are the input devices in the video?

3 What kind of graphics card is needed to play games, VR and, 3D?

4 What is RAM used for?

5 Where is permanent data stored?

6 What is the system board also know as?

1.1.2.1

7 Why shouldn’t you use a different AC adapter with a different type of laptop?

1.1.2.2

8 What is ESD?

9 How many volts need to be built up so a person can feel ESD?

10 How much to cause pain?

11 What are some precautions to avoid ESD damage?

1.1.2.3

12 How many volts does it take to damage computer components?

13 What should be attached to you when you work inside a computer?

1.2.1.1

14 What are the form factors listed that computers are available in ?

15 Why is there a fan in a computer case?

16 Cases are also designed to protect against \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ damage.

17 List the desktop power supply form factors.

1.2.15 Matching

18 This connects hard drives, optical drives, or other devices.

19 This is the only choice that does not allow for +3.3 V.

20 This connector has two rows of three to four pins and supplies power to internal components.

21 This was originally designed for network servers but is now commonly used in high-end desktop models

22 This is the most common power supply on the market today.It includes a second motherboard connector to provide dedicated power to the CPU.

1.2.2.5 Matching

23 Considered the brain of the computer.

24 Smaller form factor that is backward compatible with ATX.

25 Has only one PCI slot for expansion cards.

26 Controls high speed access to RAM and the video card.

27 Allows the CPU to communicate with slower-speed devices.

28 A temporary location to store data and applications.

29 Used to boot the computer and perform a power-on self-test.

1.2.3

30 Provides locations for connecting additional components to the motherboard.

31 How does a Pin Grid Array (PGA) differ from Lan Grid Array (LGA)?

1.2.3.3

32 What is an example of passive cooling for CPU?

1.2.4.1

33 Describe ROM

34 Describe how RAM works.

1.2.4.2

35 How does EEPROM work?

1.2.4.3

36 Review the types of RAM.

1.2.4.4

37 What are the different types of memory modules?

38 Describe Cache memory.

39 Where is ECC memory used?

1.2.4.5

40 This ROM chip can be erased using a strong ultraviolet light

41 Which memory modules can support both 32-bit and 64-bit transfers of data?

1.2.5.1

42 What version of PCIe is the fastest?

43 Is PCIe backwards compatible?

1.2.6.1

44 What are the 4 different drive options shown?

1.2.6.2

45 What are the 3 speeds of Sata Drives?

Sata1

Sata2

Sata3

1.2.6.3

46 HDDs are the traditional \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ disk devices that have been used for years.

47 Magnetic tapes are most often used for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ data.

1.2.6.4

48 Solid State \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Drives (SSHDs) are a compromise between a magnetic HDD and an SSD.

12.6.5

49 Match the data storage device to the storage type category.

1.2.7.1

50 What are the 3 different optical drives?

1.2.7.2

51 Make sure you do the matching

1.2.8.1

52 How many types of DVI are there? (Make sure you go through the list....)

1.2.8.2

53 Move through the different cable types

1.2.8.3

54 Move through adapters

1.2.8.4

12.9.1

55 List the original input devices

1.2.9.2 - 1.2.9.5

56 Move through the list of devices and complete Check Point

1.2.10.1

57 What are the different output devices listed.

1.2.10.2

58 What are the 3 types of monitors available?

59 What does DLP stand for?

60 How would you compare projectors?

1.2.10.3

61 What is the difference between VR and AR?

1.2.10.4

62 What are the types of printers listed?

1.2.10.6 The Matching

63 What LED is an LCD display that uses LED back lighting. LED has lower power consumption than standard LCD back lighting, so the panel can be thinner, lighter, and have better contrast?

64 These all have hardware that must be maintained, and most also have software, in the form of drivers, that must be kept up to date.

65 Most computers and mobile devices have audio support either integrated into the motherboard or on an adapter card. Audio support includes ports that allow input and output of audio signals.

66 They may have a variety of sensors including motion, external visual positioning, camera(s), motion tracking, accelerometer, gyroscope and magnetometer. Resolution and refresh rates vary.

67 DLP stands for Digital Light Processing. DLP uses a spinning color wheel with an array of mirrors. Each mirror corresponds to a pixel and reflects light toward or away from the optics, creating an image of up to 1024 shades of gray. The color wheel then adds the color data to complete the image.

68 They may have a variety of sensors including motion, external visual positioning, camera(s), motion tracking, accelerometer, gyroscope and magnetometer. Resolution and refresh rates vary.

69 Take the Quiz. Use the snipping tool to show a passing score