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Q1.

Ten Important Hardware of an Editing Machine:

Following is the list of ten important hardware of an editing machine.

=> CPU (Central processing Unit)
=> GPU (Graphics Processing Unit)
=> RAM (Random Access Memory)
=> Storing Devices
=> Motherboard
=> Power Supply Unit (PSU)
=> CPU cooler
=> Case
=> Peripheral Needs
=> [illegible]
=> More cooling.

Functions:-

CPU:-

CPU (Central processing unit) is the most important hardware piece of an editing machine. CPU considered as the brain of operations: it performs the calculation and tasks necessary to run the OS (operating System) and software. CPU is the hardware that will speed up your renders and your video previews while editing.

GPU:-

Graphic processing unit is another important hardware component. GPU is used for graphics-intensive work, color correction and grading. GPU powered these effects: Most CPU has integrated GPU that works for limited and minor projects. For video Editing you will have to get yourself a discrete GPU.

RAM:-

RAM (Random Access Memory) process information in active programs, and it helps run all of the programs you may have open at one time. The RAM stores data that is actively being worked on by the CPU. It can read and write very fast but loses everything it had stored once the power is turned off. 32 GB RAM is more than enough for editing every kind of videos with our editing machine.

Storing Devices:-

Storage devices has great value in an editing process. Editors stores pics of their data works everyday. Video usually needs a lot of spaces, since tends to be very large files. storage devices helps in storing project work for backups. storages devices includs SSDs, HDDs and M.2 drives.

Motherboard:-

Motherboard is a place where we put all of our hardware parts together.

the motherboard is not technically associated with performance, but it does either expand or limit your options for connections. Video editors will want a motherboard with multiple USB connections.

Power Supply Unit (PSU):-

Nothing much usually happens without a power supply to supply power to other hardware components. A strong power supply will later helps the editors to add extra components in and editing machine.

CPU cooler:-

CPU cooler is very crucial compon hardware because it cools down the the CPU. Editing and rendering going to put a lot of strain on your processor, especially when you are overclocking it. To keep CPUs running safely and efficiently it is important to use a heat and cooler to keep temperature stable.

⇒ Case:-

The case is nothing more than a fancy looking box that holds all of the hardware component. It can be opened and closed and usually has pre-defined areas with screws and holds where all the other components are supposed to be placed and attached to.

⇒ Peripheral Needs:-

peripheral includs

⇒ Monitor

⇒ Speakers

⇒ Headphones

⇒ Mouse

⇒ keyboards:-

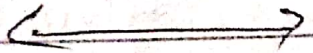
These are also known as output and input devices. Monitor enables us to see what's going on. For vi[illegible]diting you should probably invest [illegible] a good monitor. For efficient gam[illegible] monitor

athched to a discrete GPU.

Don't forget a Mouse and keyboard because without these no one can work on the machine efficiently.

More Cooling :-

Along with cpu, other hardwars also need cooling while performing during an editing process. The GPU of course also needs cooling. More cooling enhance and increases the performance and efficency of the editing machine.



Q2

Frame rate (fps)

"fps stands for frames per second" is the amount of individual video frames that a camera captures per second.

Types of frames rates:

There are several types of frames rates 24fps, 30fps, 60fps, 120fps, and 240fps.

24fps, 30fps:-

24 fps is standard for video on web, TV and film. It is because this frame rate is more cinematic and looks more common and natural to human eyes.

Commonly 30fps is used for TV, sports. It has 6 more frames than 24fps. 30 fps gives smoother looks than 24 fps. A lot of videos recording apps for smart phones, like Instagram use 30fps.

60fps, 120 fps & 240fps:-

60fps have 60 frames per second. 60fps is used to record video that will be edited in slow motion.

60fps, 120fps and 240fps are high frames rates.

Video recorded with these frames slowed down to 24fps or 30fps in post production to create that smooth slow motion effects. It is because these frames have high amount of frames than 24fps and 30fps. These frames are considered as high speed frames rates.

Q3:-

Video Resolutions:-

The term "resolution" is widely u as a common word that stands for number of pixels per unit of area

Types

SD 360p and SD 480p

This types of resolution is used for web videos for quick streaming. Videos with SD 360 and are compressed videos com made for

low bandwidth devices.

480p was common in TV broadcast before the HD television was introduced.

⇒ HD 720p

This popular video resolution, referred to as HD, HDTV or small HD is of 1280 X 720 pixels. It was the first high-definition format to be introduced around the year 2003 and is the most popular video resolution for quality content.

⇒ Full HD 1080p:-

FHD or Full HD is another notch up in quality and crispness in comparison to the previous one. It is the most widespread resolution in professional video production around the globe, and popular TV screen resolution today.

Ultra HD 4K 2160p:-

4k nowadays can be found on the latest TV monitors and high-end smartphones.

4k stands for 4000 pixels width, but with the rise of 16:9 HD television the 4K standard was defined as 3840 X 2160. 4k has 4 times more total pixels than 1080p and needs massively more resources to process edit or display.