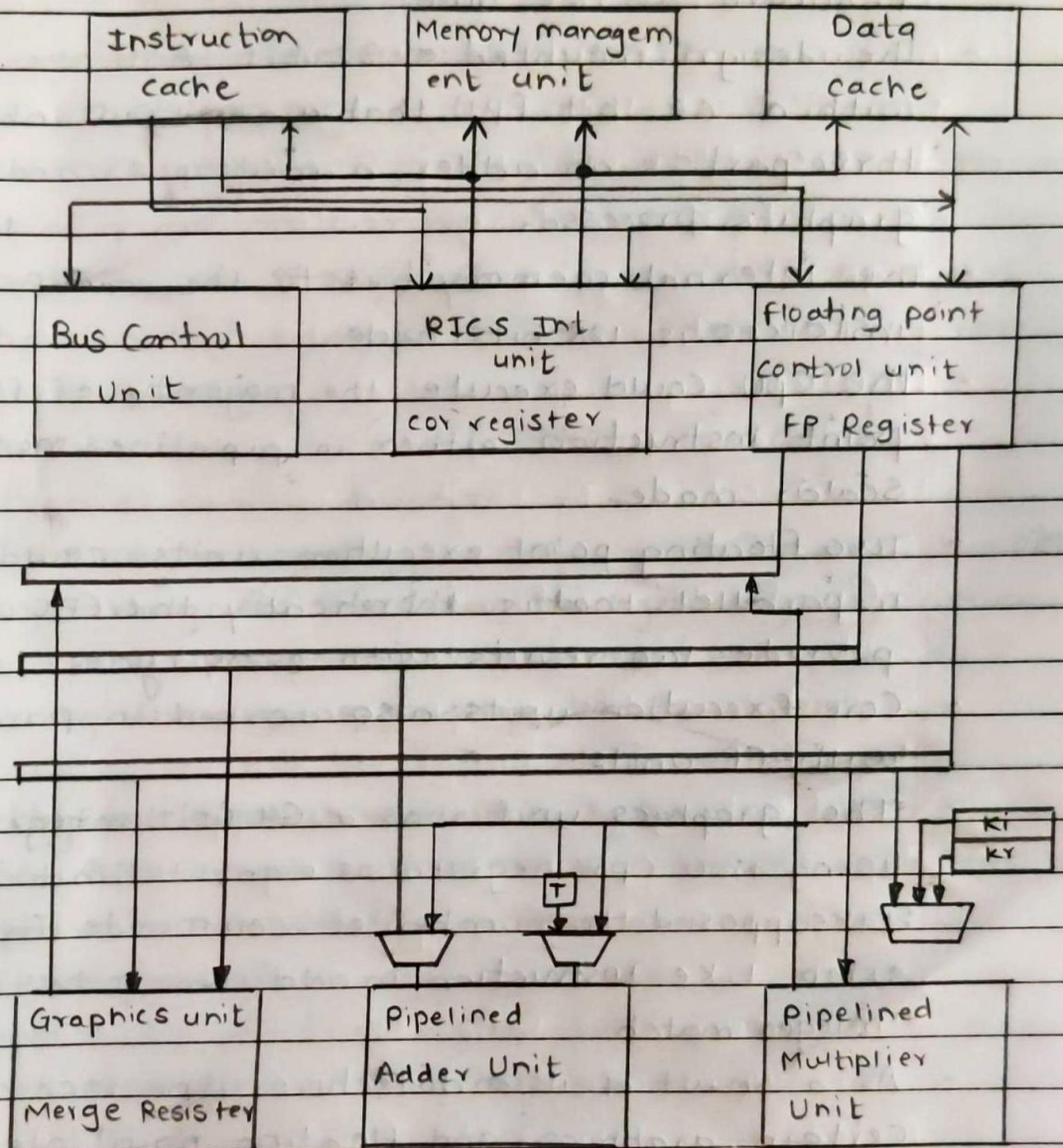CG Assignment

Q.1 Explain i8060 with a block diagram.

- It is very long instruction word architecture and the powerfull support to high-speed floating point computation was considered as the unique feauture at the time.
- The design mounted a 32 bit ALU "core" along with a 64-bit FPU that was itself inbuit in three parts : an adder, a multiplier and a graphics processor.
- The internal memory bus to the cache. for instances is 128 bits wide.
- The CPU could execute the majority of floating point instruction either in pipelined mode or in scalar mode.
- Two floating point execution units could work in parallel that is therotically the CPU could provide two results with every cycle.
- Core Execution units also worked in parallel with FP units.
- The graphics unit was a 64 unit integer unit using the cpu register as eignt 128 bit register It supposed to number of commands for SIMD like instruction in addition to basic 64 bit integer match.
- As a result of its architecture , the i860 could run certain graphics and floating point algorithm with expentionally and high speed but its performance in general purpose applications suffered and it was diff. to program efficentally.

Q.2 Write important Feature of NVIDIA gaming platform explain need of NVIDIA workstation in gaming.

Ans: Important Feature of NVIDIA.

1 Live streaming -
NVIDIA allows to record and share live streaming of game on various social media sites like YouTube etc. The shadow play feature allows the user to broadcast without bottenecking the performance.

2. Game ready drivers
NVIDIA continously works on performance boosting bug fixing etc for smoother gaming experience NVIDIA lets the user optimize gameplay by using their game ready drivers.

3. Highest Resolution game capture -
The ANSEL photo mode of NVIDIA geforce allows to capture high resolution picture of games. It also allows user to directly share the photographs on various social sites. User have diff option like Super resolution, 360 stereo photographs etc.

4. Game Filters -
NVIDIA freestyle game features filters allows the user to use post processing filters on game while playing. It changes the look and colours by saturation

or by post processing filters like HDR filter. free style is integrated at the driver level for easy compatibility with supported game

Need : NVIDIA has released Tesla, Quadro and maximus workstations which are based on GPU
1. Tesla Workstation built by big companies like Lenovo, DELL etc. It primarily focuses on Simulators and large scale calculations and high end image generation for application in profesional 4 Scientific field. It uses CVDA Parallel computing architecture which is powered by 2688 parallel processing cores for GPU which makes them 250 times fuster than normal PC's.

ii) Quadro Workstation used in running CAD softwares, machine learning and other Scientific computation. The graphic card used is identical to geforce cards but it is differs in ECC memory and floating pt precision. It supports 2560 mb of type 320 bit GDDRS. It has 352 CUDA cores which makes it excellent computation.

iii) Maximum Workstation NVIDIA introduced maximum series which can do work on applied from Adobe Autodesk, mathwort etc. CPU takes are designed to Tesla processor and it frees NVIDIA Quadro to work for graphic function only Thus , enabling high level performance, Dell HP, lenovo are offering NVIDIA max. workstation enabled

Q.3. Write about Open source tool.

Ans: Blender :

Blender is the free and open source 3D creation suite. It supports the entity of the 3D pipeline - modeling, rigging, animation, simulation, rendering, compositing and motion tracking, even video editing and game creation. Advanced users employ blenders API for python scripting to customize the application and write specialized tools. Often these are included in blender future release. Blender is well suited to individuals and small studious who benefits from its unified pipline and response developement process.

Features :-

1) Modelling :

It is the basics of creating game & environment and animation characters & probes model. We can also perform curving smothing and many other effective surface related edits to blend our model.

ii) Animation :

It is the process of adding motions to characters with the help of keys non-linear animations etc. Character animation editor is also available where we can instantly see the rendered animation screen.

Rendering :

Rendering is a much needed work in animation handling softwares. We also need good Gpu and cpu to handle and get good renders.

Other efeatures of Blender 3D include video-editing Game creation scripting, VFX, Simulation etc.