Q1. What is software ?

Ans. Software is a collection of instructions that enable the user to interact with a computer, its hardware, or perform tasks.

Without software, most computers would be useless.

Any program or code that runs on a computer is an example of software, and anything you do with a com puter requires the use of software.

We all know the general softwares that are PowerPoint, Excel, Photoshop, etc.

But the ones which we use for programming like compilers, linkers, loaders are also softwares.

Software is made up of set of instructions which are used to operate a specific task on computer or any ot her electronic system.

It tells computer what to do as instruceted by the user how to carry out that specific task.

Also it is responsible for computer hardware to perform a task called program.

Q2. Explain Following terms.

1) Saas:

SaaS stands for "Software as a Service".

It is a model of software delivary in which software is provided over the internet and accessed by the u sers through a web browser or a mobile app.

It is a cloud-based software delivery model that allows SaaS applications to run on SaaS providers' ser vers instead of installing and

maintaining software on-premises. The SaaS provider manages access to the application, including se curity, availability, and performance.

Examples of popular SaaS products: Google Workspace,Trello,Zoom,Adobe Creative Cloud.

2) Iaas:

Iaas stands for "Infrastructure as a service"

It is a cloud service model that offers on-demand infrastructure resources, such as compute, storage, n etworking, and virtualization,

to businesses and individuals via the cloud. Basically It is among best service service provider.

IaaS provider provides the following services :-

1.Compute: Computing as a Service includes virtual central processing units and virtual main memory f or the Vms that is provisioned to the end- users.

2.Storage: IaaS provider provides back-end storage for storing files.

3.Network: Network as a Service (NaaS) provides networking components such as routers, switches, a nd bridges

4.Load balancers: It provides load balancing capability at the infrastructure layer.

3) Pass:

Pass stands for "Platform as a Service".

It is a cloud computing model where a third-party provider delivers hardware and software tools to user s over the internet.

Usually, these tools are needed for application development.PaaS does not replace a company's entire IT infrastructure for software development.

It is provided through a cloud service provider's hosted infrastructure. Users most frequently access the offerings through a web browser.

PaaS can be delivered through public, private and hybrid clouds to deliver services such as application hosting and Java development.

PaaS includes infrastructure (servers, storage, and networking) and platform to support the web applic ation life cycle.

Example: Google App Engine, Force.com, Joyent, Azure.

4)Iaac:

IaC stands for ""infrastructure as a Code".

It is a method to managing data centre server, storage storage and networking infrastructure.

The benefits of IaC include improved consistency and reliability, faster deployment times, increased scalability and efficiency, and easier management and

maintenance. IaaC also promotes collaboration and transparency among teams, as infrastructure changes are clearly defined and tracked in code repositories.

IaC tools and frameworks can vary, but they generally involve defining infrastructure components and resources as code, using a declarative syntax as YAML or JSON.

Popular IaC tools include Terraform, Ansible, Puppet, and Chef.