Biyani Institute of Science & management

I Internal Examination 2019-20
Class: MCA-V
Subject- Cloud Computing (MCA-501)

Time: 1½Hrs | Set: B | MM: 20

[I] Very Short Answer Questions (Max 40 words). **(2*1=02)**

1. What is Private Cloud?

Ans. Private Cloud refers to a model of cloud computing where IT services are provisioned over private IT infrastructure for the dedicated use of a single organization. A private cloud is usually managed via internal resources. The terms private cloud and virtual private cloud (VPC) are often used interchangeably.

2. What is the use of service provider?

Ans. A cloud service provider, or CSP, is a company that offers some component of cloud computing -- typically infrastructure as a service (IaaS), software as a service (SaaS) or platform as a service (PaaS) -- to other businesses or individuals

[II] Short Answer Questions (Max 80 words). **(2*3=06)**

1. What is Hypervisor in Cloud Computing?

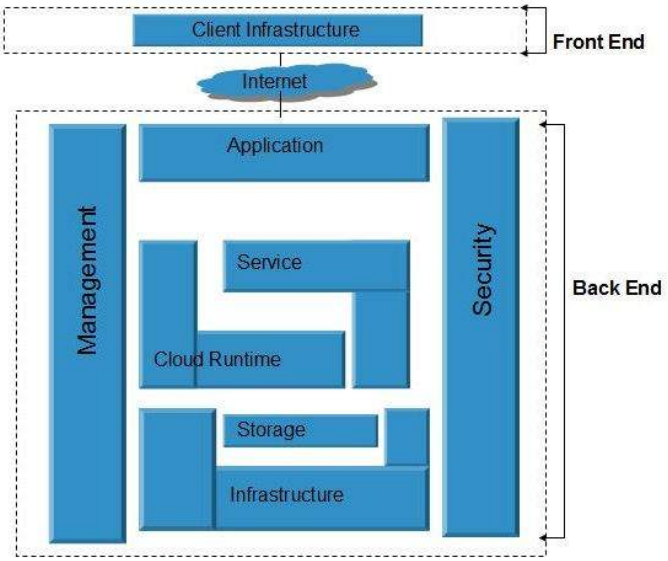
Ans. Hypervisor is a form of virtualization software used in Cloud hosting to divide and allocate the resources on various pieces of hardware. The program which provide partitioning, isolation or abstraction is called virtualization hypervisor. Hypervisor is a hardware virtualization technique that allows multiple guest operating systems (OS) to run on a single host system at the same time. A hypervisor is sometimes also called a virtual machine manager (VMM).

2. Explain Cloud Computing Architecture?

Ans. Cloud Computing architecture comprises of many cloud components, which are loosely coupled. We can broadly divide the cloud architecture into two parts:

- Front End
- Back End

Each of the ends is connected through a network, usually Internet. The following diagram shows the graphical view of cloud computing architecture:



Front End

The front end refers to the client part of cloud computing system. It consists of interfaces and applications that are required to access the cloud computing platforms, Example - Web Browser.

Back End

The back End refers to the cloud itself. It consists of all the resources required to provide cloud computing services. It comprises of huge data storage, virtual machines, security mechanism, services, deployment models, servers, etc.

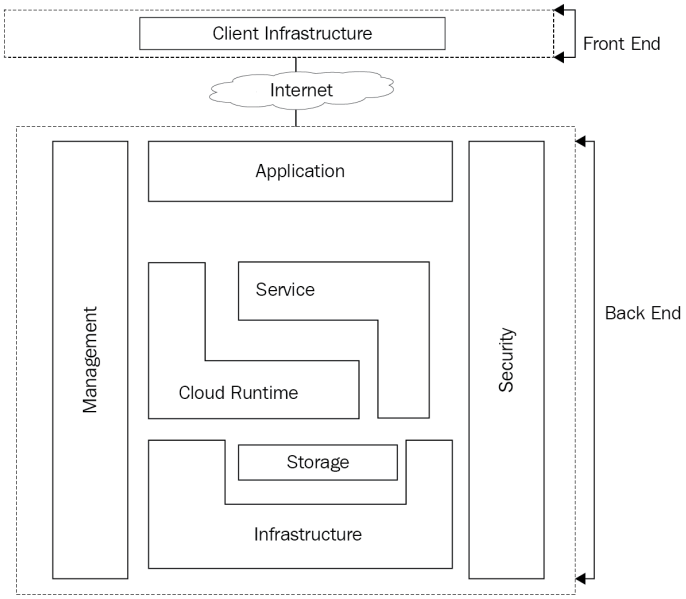
[III] Long Answer Questions (Max 150 words). **(2*6=12)**

1. Explain Cloud Ecosystem?

Ans. n a cloud computing ecosystem, there are a number of computers, servers, and data storage equipment that together make the *cloud* of computing services. Cloud computing could incorporate any program (from data handling applications, to enterprise scale applications, to computer games). For the most part, every application has its own committed server paying little mind to the cloud provider you utilize.

To guarantee that everything works smoothly and proficiently, the cloud ecosystem utilizes a focal server (otherwise known as control server) to administer and monitor traffic and customer requests, which eventually includes the utilization of protocols (set of rules) and middleware (special software). The reason why middleware is utilized here is to permit different networked computers in the ecosystem to exchange information with each other.

The following image can help you understand all the aspects that cloud computing has:



2. Explain hybrid and community cloud.

Ans. **Hybrid Cloud**

In a hybrid cloud, a company's cloud deployment is split between public and private cloud infrastructure. Sensitive data remains within the private cloud where high security standards can be maintained. Operations that do not make use of sensitive data are carried out in the public cloud where infrastructure can scale to meet demands and costs are reduced.

Hybrid clouds are well suited to carrying out big data operations on non-sensitive data in the public cloud while keeping sensitive data protected in the private cloud. Hybrid clouds also give companies the option of running their public-facing applications or their capacity intensive development platforms in the public portion of the cloud while their sensitive data remains protected.

Community Clouds

Community clouds are a recent variation on the private cloud model that provide a complete cloud solution for specific business communities. Businesses share infrastructure provided by the CSP for software and development tools that are designed to meet community needs. In addition, each business has its own private cloud space that is built to meet the security, privacy and compliance needs that are common in the community.

Community clouds are an attractive option for companies in the health, financial or legal spheres that are subject to strict regulatory compliance. They are also well-suited to managing joint projects that benefit from sharing community-specific software applications or development platforms.

The recent development of community clouds illustrates how cloud computing is evolving. CSPs can combine different types of clouds with different service models to provide businesses with attractive cloud solutions that meet a company's need.