UNIT-TEST-1.

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PART-B

5) CLOUD COMPUTING SERVICES

SaaS - Software as a Service.
PaaS - Platform as a Service.
IaaS - Infrastructure as a Service.

SaaS

* is a ~~service~~ software distribution model. in which applications are hosted by vendor or service provider and made available to the customer over a network.

* is a delivery model as underlying technologies that supports web services and SOA.

* is associated with pay as you go. subscription model.

* applications also must be able to interact with other data and other applications in an equally wide variety of environment and platforms.

* is most often implemented to provide business software functionality to enterprise customers at a low cost.

* accessible from any computer

Eg:- Google Docs, Aviary.

PaaS.

* is an outgrowth of SaaS application delivery model.

* makes all the facilities required to support the complete life cycle of building, delivering web application and service

* are concerned only with the web based development.

* do not care what operating system is used.

* allows to focus on innovation

* offers a faster, more cost effective model for application development and delivery, for solution

* provides all the infrastructure needed to run an application in the internet.

* enables pay per use billing model.

Eg:- Google, eBay

IaaS

* allows existing application to run on its hardware.

* helps in renting out resources wherever they are needed.

* Customers maintain ownership and management of their applications while off loading the hosting operation

* Customers can rent those resources fully as an outsourced resource [service].

* Charging only for resources consumed.

* Reduced time, cost and complexity in adding new features or capabilities.

* Reduced risk ~~of~~ by having off-site resources maintained by third parties.

Eg:- Amazon Elastic Compute Cloud, GoGrid.

2) SCALABILITY.

A system is described as a scalable if it remains effective when there is a significant (sudden) increase in no. of resources and no. of users.

Scalability in cloud is possible through virtualisation and refers to the increase or decrease resources as needed to meet changing demand.

VM is highly flexible to scale up and down.

Convenience, Flexibility and speed, Cost savings, Disaster recovery are the benefits of scalability.

ELASTICITY

Elasticity is the degree to which a system is able to adapt to workload changes by provisioning and deprovisioning resources in an automatic manner.

Elasticity can be achieved by scope, policy, purpose, method.

SCOPE
* Infrastructure
* Platform
* Application

POLICY
* Reactive
* Predictive

PURPOSE
* Performance
* Energy
* Cost

METHOD
* Horizontal
  → Replication
* Vertical
  → Resizing
  → Migration

PART-A:

1)

* Multitenancy
* Increased peak-load capacity
* Dynamic allocation of CPU, network bandwidth.
* Reliability.
* lower cost

2) Yes, the statement "Grid inherits feature of P2P and Cluster Computing system" is true

Grid is the extended version of cluster computing in which resources shared through internet.

4) In Cloud computing, multi-tenancy is the different users can access the single version of software.

* lower cost.
* user's data are never shared.
* ongoing maintenance

5) PUBLIC CLOUD:-

* uses ~~pay-as-go~~ pay-as-you-go model.
can be used by group of company to share information

PRIVATE CLOUD:-

* greater flexibility
* improved security and risk management.

PART - B.

4) COMPUTING PARADIGMS.

Peer to peer computing
Distributed computing
Collaborating computing
Cloud computing

DISTRIBUTED COMPUTING.

is a model in which the components of ~~the~~ software system are shared among multiple computers. to improve efficiency and performance.

is limited to programs with components shared among computers within a limited geographical area.

CLOUD COMPUTING.

Hosted services made available to users from a remote location.

delivery of on-demand computing services