

**CLO # 1: Learn about the concepts of the fundamental cloud computing.**

**Q1:** From the given options, select the best answer. Cutting or over-writing will be marked zero.

**[16 marks]**

1. A group of independent IT resources that are interconnected and work as a single system:  
(a) ☒ Cluster (b) Computing Grid  
(c) Cloud (d) None of the given options
2. Pre-defined ready-to-use environment exists as \_\_\_\_\_ offering:  
(a) IaaS (b) ☒ PaaS  
(c) SaaS (d) NaaS
3. \_\_\_\_\_ refers to a distinct IT environment that is designed for the purpose of remotely provisioning scalable and measured IT resources.  
(a) Cluster (b) Computing Grid  
(c) ☒ Cloud (d) None of the given options
4. The replacing an IT resource with another that has a lower capacity is referred to as:  
(a) Scaling out (b) Scaling In  
(c) Scaling Up (d) ☒ Scaling Down
5. IBM Smart Cloud is an example of:  
(a) Public Cloud (b) Community Cloud  
(c) ☒ Private Cloud (d) Hybrid Cloud

6. An organization (or a human) that has a formal contract or arrangement with a cloud provider to use IT resources made available by the cloud provider.
- (a) Cloud Service Owner (b) Cloud Auditor  
(c) Cloud Resource Administrator (d) Cloud Consumer
7. Which of the following is considered as the foundation of contemporary cloud computing?
- (a) Clustering (b) Grid Computing  
(c) Virtualization (d) All of the given options
8. We can access a windows based Virtual Private Server via Remote Desktop Connection utility using RDP on default port:
- (a) 22 (b) 3386  
(c) 3379 (d) 3389
9. Virtualization software is also known as:
- (a) Virtual Machine Manager (b) Virtual Machine Monitor  
(c) Hypervisor (d) All of the given options
10. Virtualization technology enables different virtual servers to share one physical server. This process is called:
- (a) Hardware Independence (b) Server Consolidation  
(c) Resource Replication (d) None of the given options
11. Which of the following is not a technology used inside data centers to increase the storage capacity?
- (a) Direct Attached Storage (b) Storage Attached Network  
(c) Network Attached Storage (d) Storage Area Network
12. True or False? OS based virtualization is more efficient than HW based virtualization.
- (a) True (b) False
13. Which of the following is a compute service?
- (a) Amazon VPC (b) Amazon S3  
(c) Amazon EC2 (d) All of the given options
14. Point-to-Point protocol belongs to which layer of OSI reference model?
- (a) Application Layer (b) Transport Layer  
(c) Network Layer (d) Data Link Layer

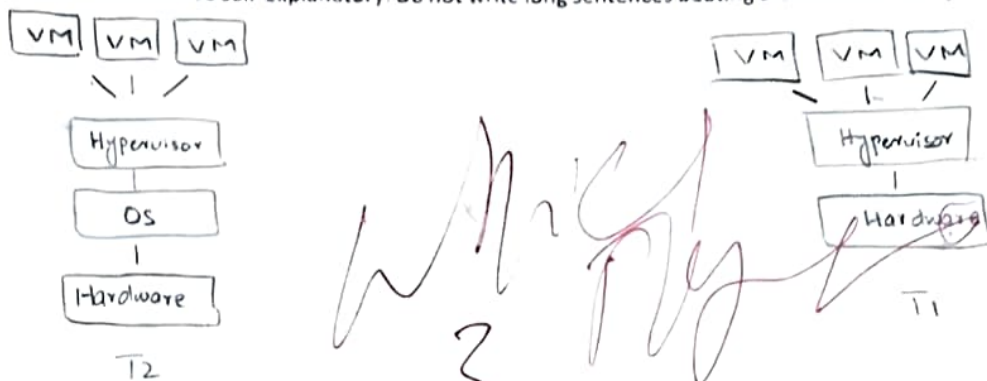
# National University of Computer and Emerging Sciences

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**Q3: With the help of diagrams, provide a difference between type 1 hypervisor and type 2 hypervisor.**

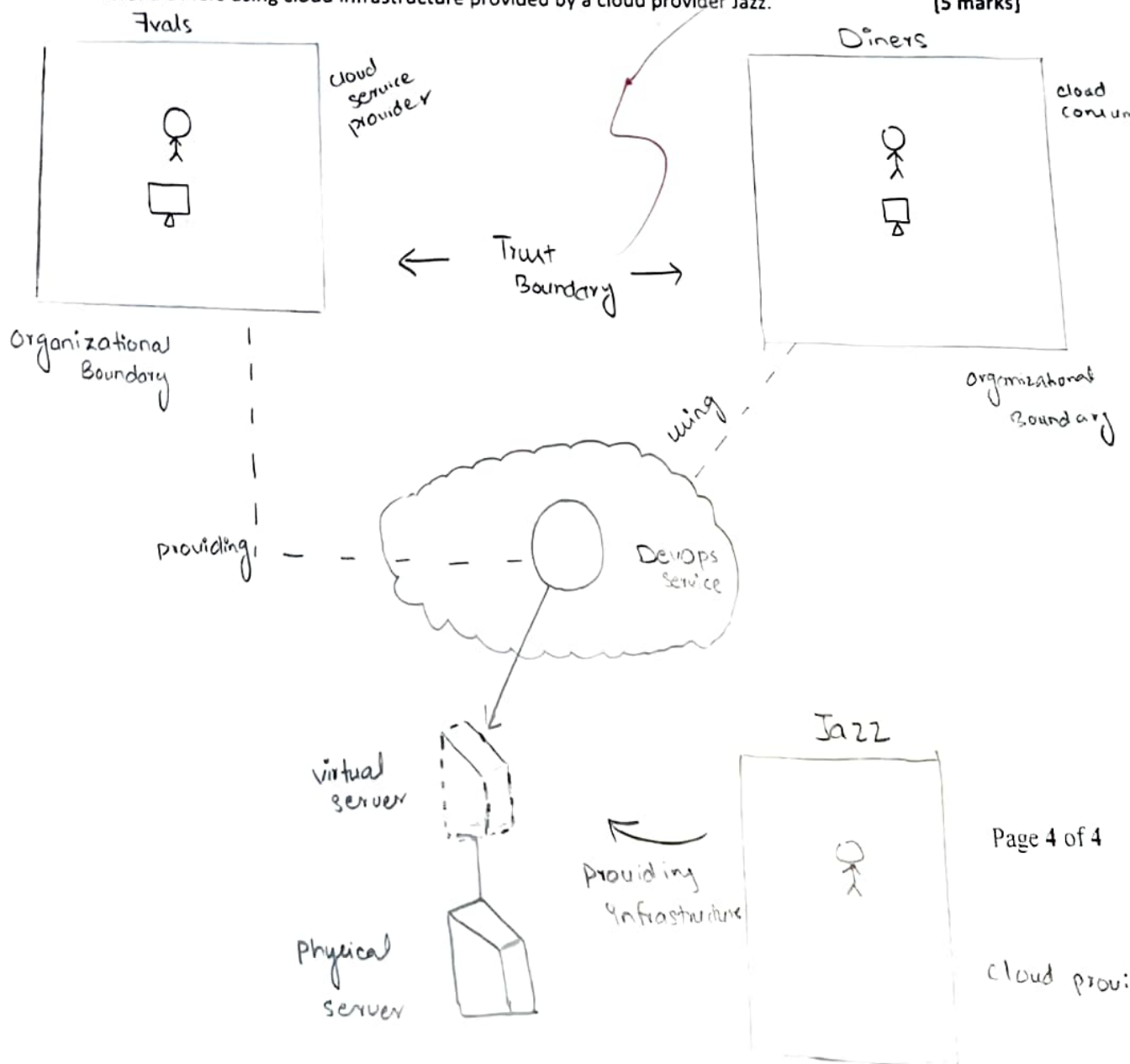
Diagrams should be self-explanatory. Do not write long sentences beating around the bush. **[4 marks]**



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**Q4: Make an architecture depicting an organization 7vals is providing DevOps services to a clothing brand Diners using cloud infrastructure provided by a cloud provider Jazz.**

**[5 marks]**



it can be **false** if we see country regulations

15. True or False? A person sitting in China can deploy resources in AWS US Virginia region.

(a) True

(b) False

16. Which component of AWS global infrastructure does Amazon CloudFront use to ensure low-latency delivery?

(a) AWS Regions

(b) AWS Availability Zones

(c) AWS Edge Locations

(d) Amazon VPC

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Q2: Make an architecture depicting that "NUMUN VM" deployed in an organization VDC network "ISBVPC01" and "FLEX VM" deployed in an organization VDC network "LHRVPC04". "ISBVPC01" exists in organization VDC "ISBCampusVDC" and "LHRVPC04" exists in organization VDC "LHRCampusVDC". Both VDCs are virtually connected via their respective Edge Service Gateways and are part of a cloud organization "FAST". [5 marks]

FAST

