Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, July 2020

Course: Introduction to Virtualization & Cloud Computing **Semester: VIII**

Program: B.Tech OGI, IT **Time 03 hrs.**

Course Code: CSIB274 **Max. Marks: 100**

Instructions:

SECTION A

S. No.		Marks	CO
Q 1	I) Which of the following is another name for system virtual machine? a) hardware virtual machine b) software virtual machine c) real machine d) None of the mentioned II) Which of the following provide system resource access to virtual machines? a) VMM b) VMC c) VNM d) All of the mentioned III) Point out the correct statement : a) A virtual machine is a computer that is walled off from the physical computer that the virtual machine is running on b) Virtual machines provide the capability of running multiple machine instances, each with their own operating system c) The downside of virtual machine technologies is that having resources indirectly addressed means there is some level of overhead d) All of the mentioned	**6**	**CO1**
Q 2	I) An operating system running on a Type _____ VM is a full virtualization. a) 1 b) 2 c) 3 d) All of the mentioned II) _____are the three major layers in a Xen Server. III) _____ provides a file system level abstraction of the storage, i.e. the remote storage file system can be locally mounted by a host as any other file system. a. NAS b. SAN c. Both NAS and SAN d. All of the above	**6**	**CO2**

Q 3	I) _____ builds a virtual layer on the user-desk top which allows the applications to run and execute without any major dependency on the specifics of the OS and the platform. II) Virtualization of a _____ may mean multiple things depending on the kind of business problem solved, but essentially it refers to the creation of a logical network layer over the physical network resources. a. storage b. server c. network d. Application III) _____ is a service that creates and manages virtual network interfaces. a) VMware vStorage b) VMware vNetwork c) VMware vCompute d) Application services	**6**	**CO2**
Q 4	I) Cloud deployment models are IaaS, PaaS and SaaS. a. True b. False II) _____defines what kind of services the cloud is capable of provid in gand at what cost to the end-user. a. Service list b. Service cloud c. Service catalog d. None III) Which of the following is a cloud deployment model? (i)Private Cloud (ii) Public Cloud (iii) Hybrid (iv) IaaS a. (i), (ii) & (iii) are true b. Only (iii) is true c. All are true d. None of these	**6**	**CO3**
Q 5	I) Amazon Web Services is which type of cloud computing distribution model? a. Software as a Service b. Platform as a Service c. Infrastructure as a Service d. None of these II) What is the name of the Rack space cloud service? a. Cloud On-Demand b. Cloud Servers c. EC2 d. None of these III) All qualified servers for virtualization will be classified under two major categories– a. VMs and Computer Systems b. VMs and VDIs c. VMs and Hypervisors d. Hypervisors and Compuer Systems	**6**	**CO4**

SECTION B			
Q 6	Compare traditional IT Infrastructure and Virtualized Infrastructure.	**10**	**CO1**
Q 7	Explain emulation, simulation and virtualization and elaborate with examples.	**10**	**CO2**
Q 8	Explain Storage Virtualization in detail.	**10**	**CO3**
Q 9	Explain the benefits of application virtualization.	**10**	**CO3**
Q 10	Explain the architectural design of NAS & SAN.	**10**	**CO4**
SECTION-C			
Q 11	a) Elaborate working of VPN in detail. b) Explain "Mixed Work Loads" Or Explain the benefits of application virtualization and network virtualization	**20**	**CO4**