UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, May 2021

Programme Name: BTech-CS (OGI) **Semester : VIII**
Course Name : Introduction to Virtualization and Cloud Computing **Time : 03 hrs**
Course Code : CSVT 2001 **Max. Marks : 100**
Nos. of page(s) : 2
Instructions: All questions are compulsory.

Section A - 30 marks (Attempt All 6 Questions in this Section. Each question carries 5 marks.
Section B - 50 marks (Attempt All 5 questions. Each question carries 10 marks)
Section C - 20 marks

SECTION A

S. No.		Marks	CO
Q 1	Native Virtualization, Para-Virtualization, OS Virtualization, Application Virtualization are classification of Virtualization (a) based on the extent of hardware emulation (b) based on the technology or the area that is being virtualized – Server, Storage, network (c) Both a and b (d) None	5	CO1
Q 2	Which of the following software can be used to implement load balancing? (a) Apache mod_balancer (b) Apache mod_proxy_balancer (c) F6's BigIP (d) All of the mentioned	5	CO1
Q 3	Which of the following is a more sophisticated load balancer? (a) workload managers (b) workspace managers (c) rackserve managers (d) all of the mentioned	5	CO4
Q 4	Point out the wrong statement. (a) A cloud is defined as the combination of the infrastructure of a datacenter with the ability to provision hardware and software (b) High touch applications are best done on-premises (c) The Google App Engine follows IaaS (d) None of the mentioned	5	CO4
Q 5	How many security accounts per client is provided by Microsoft? (a) 1 (b) 3 (c) 5 (d) 7	5	CO5
Q 6	Which of the following monitors the performance of the major cloud-based services in real time in Cloud Commons? (a) CloudWatch	5	CO5

	(b) CloudSensor		
	(c) CloudMetrics		
	(d) All of the mentioned		
SECTION B			
Q 7	Write the shortcomings of physical infrastructures? (3 Marks) Compare the traditional IT infrastructures with virtualized infrastructures? (7 Marks)	**10**	**CO1**
Q 8	Explain four common considerations in server virtualization? (2.5 Marks each)	**10**	**CO2**

Q 9	What is Desktop Virtualization? (2 Marks)
	 How it works? (3 Marks)
	 Write at least 5 benefits of Desktop Virtualization? (5 Marks)
	
	 --OR--
	
	 Explain the following:
	    (a) Host level virtualization? (4 Marks)
	    (b) Network based virtualization? (4 Marks)
	    (c) Hybrid model (2 Marks)
		10	**CO2**

Q 10	Write the risk and benefit of each deployment models? (6 Marks) What are the different cloud deployment decision factors? List all. (4 Marks)	**10**	**CO4**
Q 11	What are the different functions of datacenter we had discussed in class while studying case study of "Fiber Coils Co."?	**10**	**CO5**
SECTION-C			

Q 12	What is Cloud Computing? (3 Marks). Compare Virtualization and Cloud Computing? (7 Marks) Explain SLA and Service Catalog? (10 Marks)
	
	 ---OR---
	
	 Explain cloud computing in terms of the following terminologies:
	    (a) Business Value
	    (b) Business impact
	    (c) Technological value
	    (d) Configuration management database
	    (e) Self service
		20	**CO3**