

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2020

Course: Introduction to Virtualization and Cloud computing
Program: B.Tech-CSE-ECRA
Course Code: CSVT 2001

Semester: VII
Time: 03 hrs.
Max. Marks: 100

Instruction: Attempt all questions. Internal choice is given, wherever applicable.

SECTION A

S. No.		Marks	CO
Q 1	Distinguish between Partial and Hybrid Virtualization.	5	CO1
Q 2	Enlist and explain the characteristics of Virtualization?	5	CO1
Q 3	Differentiate between Grid, Cluster and Cloud Computing?	5	CO2
Q 4	Explain the storage virtualization and its benefits.	5	CO3
Q 5	“Business impact when using a cloud”. Justify the statement in your own words.	5	CO2
Q 6	Discuss in detail the Pros and Cons of cloud model.	5	CO3

SECTION B

Q 1	Describe all the deployment models of Cloud. Also discuss the Pros and Cons of each architecture.	10	CO3
Q 2	Give an overview of Virtualization. Explain the need of Virtualization. Also state the shortcomings of physical infrastructure.	10	CO1
Q 3	What is VPN? Explain it with the help of diagram. Also discuss how it works.	10	CO4
Q 4	Discuss the types of hypervisors with the help of diagram.	10	CO2
Q 5	Discuss: a) Network Virtualization b) Application Virtualization c) Desktop Virtualization	10	CO4

SECTION-C

Q 1	I am starting a new company to analyze videos. I'll need a lot of storage as videos consume quite a bit of disk. Additionally, I'll need ample computational power, possibly running applications concurrently. I have discovered some very good tools to facilitate development in Windows but the deployment will be more efficiently handled in the Linux environment. All the pointers say that I need to move to cloud. I have found that SaaS is the most attractive service, followed by PaaS and IaaS, in that order. Given the above information, which service do you recommend? Why?	20	CO5
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OR

	a) For a SaaS application, who will be responsible to provide security for the infrastructure? Will it be cloud service provider or the cloud service consumer? Who will be responsible to ensure compliance with a privacy standard? Formulate your views about it. b) In today's world infrastructure security and data security is highly challenging at network, host and application levels". Justify and explain the several ways of protecting the data at transit and at rest	10+10 =20	CO5
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