Name: Enrolment No:	

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

Course: Cloud Computing- Principles and Practices   Semester: V
Program: B.Tech CSE DevOps   Time 03 hrs.
Course Code: CSVT3007P   Max. Marks: 100

Instructions:

SECTION A

S. No.		Marks	CO
Q 1	Distinguish between Para Virtualization and Full Virtualization.	05	CO1
Q 2	Briefly discuss working of a VPN?	05	CO1
Q 3	Describe the steps that are followed when preparing for Virtualization.	05	CO2
Q 4	Describe the working of Type 1 and Type 2 Hypervisors.	05	CO2
Q 5	Describe 'Anatomy of Cloud, explaining functions of all components.	05	CO3
Q 6	Detail the cloud delivery models. Explain each with its benefits and applicability.	05	CO3

SECTION B

Q 1	Describe, when would you recommend a Server Virtualization for any given organization? Develop problem statement and discuss the features of solution suggested?	10	CO1
Q 2	Detail how does storage virtualization provide features of 'Interoperability', 'Manageability' and 'Scalability'	10	CO2
Q 3	Discuss the decision factors for choosing between different cloud deployment models. Use suitable examples, wherever applicable.	10	CO3
Q 4	What should enterprises keep in mind when considering a hybrid cloud strategy?	10	CO4
Q 5	What is the minimal requirement to implement an SAAS Cloud? How the SAAS Cloud is different from traditional cloud computing architecture?	10	CO4

	SECTION-C		

Q 1	Homestead house is a privately owned farmhouse that produces a wide selection of top quality vegetables and fruits. They have 30 farmland and 300 shops across Nine countries. Their product are handpicked and harvested in the farmland by farmers, then transported to their warehouse where it is packaged and made ready for distribution. The packed products are the distributed to their shops and to other supermarket in wholesale. The manager of Farm-house has approached you, requesting advice on how cloud-based solutions can be used to manage their business. Considering companies do not need to invest in their own IT data center, they can use cloud-based infrastructures and applications to manage their businesses.
	
	  1. List and Explain in details the most needed infrastructures and applications that can help to manage their business.
	  2. For each listed infrastructure/application
	   a) Explain in detail, it's role in managing the business
	   b) Under what type of service does it fall (IAAS, PAAS, SAAS). Explain why?
	   c) Choose a cloud service provider that can provide such service. Give reasons why you prefer the chosen cloud service provider instead of others (explain their product and services relating to this)
	
	OR
	
	 Each one of you is to imagine yourself to be part of an Organization /firm /institution /company /enterprise, in business. It could be your dream company or business. Name it, describe it briefly, and outline its issues with traditional IT infrastructure (specific to any one or more of these computing power, data storage, network bandwidth) You should also elaborate on its day today dealings related to the following, 'the kind of business (small/ medium/large), data it deals with, security and privacy needs, data freedom desired, type of workload, availability of Capex, Opex, time to deploy etc).
	
	Suggest a suitable cloud service model (SAAS/PAAS/IAAS) and deployment solution (public/private/hybrid), answering the requirements. Discuss the 'Decision Factors' and list benefits of your solution.
		20	**CO5**