

Name:
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, Dec 2024

Course: Cloud Deployment Models
Program: B.Tech CSE Spz. CCVT
Course Code: CSVT3025

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

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	List key characteristics of OpenStack block storage service.	4	CO1
Q 2	In context to OpenStack architecture, explain the concept of Remote Procedure Call (RPC).	4	CO2
Q 3	Outline the purpose of the Horizon dashboard in OpenStack.	4	CO3
Q 4	List any four use cases for OpenStack implementation.	4	CO3
Q 5	Explain Intelligent Allocation Policies with an example.	4	CO4

SECTION B
(4Qx10M= 40 Marks)

Q 6	Discuss Sahara along with its workflow diagram.	10	CO1
Q 7	Analyze the importance of Keystone in OpenStack for identity services, and describe how it integrates with other components for authentication and authorization.	10	CO2
Q 8	Illustrate the different stages of Cloud Adoption Journey.	10	CO2
Q 9	Explain the combined use of “Sahara” and “Telemetry” services of OpenStack with the help of a use case. OR Describe the use of REST APIs with respect to OpenStack services for hosting an ecommerce website.	10	CO3

SECTION-C
(2Qx20M=40 Marks)

Q 10	With reference to Cloud Deployment answer the following: (a) Define SDN (b) SDN Architectural Components (c) Discuss how SDN could address the existing network management challenges faced by the company and enhance scalability, flexibility, and overall operational efficiency.	[5+10+5]	CO3
Q 11	With reference to the concept of “Automation” answer the following with an example: (a) Define Intelligent Resource Allocation policies (b) Discuss Live VM Migration (c) Use of triggers (d) Smart Power Management Policies	[5+5+5+5]	CO4

OR

With reference to the concept of “VMware Suite” answer the following:

- (a) What are the key considerations and steps involved in creating a hybrid cloud environment using VMware vSphere Suite? Explain the role of VMware Cloud Foundation in enabling the integration between the on-premises data center and public cloud resources.
- (b) What are the potential challenges an organization might encounter when adopting a hybrid cloud model with VMware vSuite, and how can these be mitigated? Discuss the impact on workload migration, data security, and maintaining compliance in a hybrid cloud setup.

**[10+10
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