

**Name:**  
**Enrolment No:**



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

**Course:** Cloud Application Development  
**Program:** MCA  
**Course Code:** CSCS8007P

**Semester:** III  
**Time** 03 hrs.  
**Max. Marks:** 100

**SECTION A**  
**(5Qx4M=20Marks)**

S. No.		Marks	CO
Q 1	Define Cloud native applications.	4	CO1
Q 2	Define SaaS.	4	CO2
Q 3	List any three application examples for microservices.	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	Illustrate the characteristics of Cloud Applications.	10	CO1
Q 7	Analyse the importance of Keystone and IAM service in OpenStack and AWS for identity services, and describe how it integrates with other services 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 “EC2” services of OpenStack and AWS with the help of a use case.  <b>OR</b>  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	Discuss in detail the architecture of Chef, including its key components such as Chef Server, Chef Workstation, and Chef Client. Discuss how these components interact with each other to manage infrastructure as code.	[20]	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  <b>OR</b>	[5+5+5+5]         [20]	CO4

	Explain in detail all the types of cloud application architectures. Give a suitable example for each one architecture.		
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