Name:

**Enrolment No:** 



**Semester: VII** 

## UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

**End Semester Examination, December 2022** 

**Course: Cloud Computing Architecture and Deployment Models** 

Program: BTech.- CSE-AI & ML (B1-B6)

Course Code: CSVT 4004P

Time : 03 hrs.

Max. Marks: 100

**Instructions: Calculator is not allowed.** 

| Instruc                        | ctions: Calculator is not allowed.   |         |             |  |  |
|--------------------------------|--|---------|-------------|--|--|
| SECTION A                      |  |         |             |  |  |
| Attempt all questions (5x4=20) |  |         |             |  |  |
| S. No.                         |  | Marks   | CO          |  |  |
| Q 1                            | List down the different prioritized cloud computing applications.  | 4       | CO1         |  |  |
| Q 2                            | Describe the application transformation and application modernization techniques in cloud computing environment.   | 4       | CO1         |  |  |
| Q3                             | Discuss briefly about the self-service cloud computing and cloud management.   | 4       | CO2         |  |  |
| Q4                             | Explain Dynamic Provisioning in cloud computing.   | 4       | CO2         |  |  |
| Q5                             | write a short note on system redundancy and its importance in cloud computing.   | 4       | CO3         |  |  |
|                                | SECTION B  |         |             |  |  |
|                                | Attempt all Questions $(4x10=40)$  |         |             |  |  |
| Q6.                            | Explain briefly about the dedicated private cloud hosting. Define virtualization and outline its various types along with adequate detail.   | 4+6     | CO1,<br>CO2 |  |  |
| Q7.                            | Write down the utilities of VMware and vCloud. Illustrate the various features, benefits, and roles of IBM Smart Cloud Entry.  | 5+5     | CO3         |  |  |
| Q8.                            | Outline the different risks of adopting the public cloud in brief. Illustrate the migration process in a public cloud computing environment.   | 5+5     | CO4         |  |  |
| Q9.                            | Demonstrate the compensation within SLA in brief. Point out the roles of exclusion filter in cloud-based protection.   | 5+5     | G0.4        |  |  |
|                                | OR Write a short note on Jurisdiction and cloud computing. Illustrate cloud interoperability and point out its importance in brief.  | 4+6     | CO3,<br>CO4 |  |  |
|                                | SECTION-C  |         |             |  |  |
|                                | Attempt all Questions (2x20=40)  |         |             |  |  |
| Q10                            | Define OpenStack architecture and list down its utilities. Discuss precisely about NIST reference architecture mapping. List down the importance of resource pooling architecture. Classify the various Cloud computing patterns and state their applications concisely. | 6+4+4+6 | CO1,<br>CO2 |  |  |

| Q11. | Demonstrate the various features of elastic disk provisioning. Outline the architectural differences between elastic resource capacity and service load balancing in any cloud. Writ a short note on Open Cloud Computing Interface (OCCI). Demonstrate the various lock-in conditions for public cloud. | 5+6+5+4 | 903         |
|------|--|---------|-------------|
|      | OR   |         | CO3,<br>CO4 |
|      | Compare the functionalities of data locality and data center. Differentiate between cloudonomics and cloud pricing in brief. Illustrate the various aspects of workload management of any hybrid cloud. Outline the distinct benefits of IBM Bluemix.  | 5+4+6+5 |             |