

Code No.: CY8310E

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**CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS**

**IV-B.TECH-II-Semester End Examinations (Regular) – April - 2024
INTRODUCTION TO CLOUD SECURITY
(CSM)**

[Time: 3 Hours]

[Max. Marks: 70]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(20 Marks)

1. a) Write the advantages of cloud computing. [2M]
- b) Compare public vs private cloud. [2M]
- c) What are the challenges organizations might face when migrating existing web services to a cloud environment. [2M]
- d) List the advantages of deploying web services. [2M]
- e) Define authentication. [2M]
- f) Write the security challenges in the cloud. [2M]
- g) What is meant by Multi-tenancy? [2M]
- h) Describe Virtual Machine File System. [2M]
- i) Give the challenges of data storage security in cloud. [2M]
- j) What are the basic principles of security management? [2M]

PART-B

(50 Marks)

2. How do SaaS, IaaS, and PaaS offerings differ in terms of management responsibilities for users? Give examples to illustrate these differences. [10M]
- OR**
- 3.a) Define cloud computing and explain its fundamental principles. [5M]
 - b) Discuss the role of virtualization technologies in creating cloud environments. [5M]
4. Analyze the processes required for deploying web services from inside and outside cloud architecture along with the advantages and disadvantages of each approach. [10M]
- OR**
5. How does the choice of deployment environment impact the scalability and performance of web services? Provide examples to support your answer. [10M]
6. List and explain cloud security concepts. [10M]
- OR**
7. Illustrate the principles of confidentiality, integrity, and availability applied in Software as a Service (SaaS) with suitable examples. [10M]
8. What are the security concerns associated with multi-tenancy in virtualized environments? [10M]
- OR**
9. Discuss about ESX file system security. [10M]
10. Describe the challenges and solutions associated with data security and storage in the cloud. [10M]
- OR**
11. How can organizations identify and mitigate security risks associated with their cloud-based infrastructure and services? Explain. [10M]
