

# CBCS SCHEME

BIS613D



**Sixth Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026**  
**Cloud Computing and Security**

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
 2. M : Marks , L: Bloom's level , C: Course outcomes.*

| Module – 1        |    |  | M  | L  | C   |
|-------------------|----|--|----|----|-----|
| Q.1               | a. | Explain the different system models used in distributed and cloud computing.     | 10 | L2 | CO1 |
|                   | b. | What are the challenges in ensuring security in a distributed cloud set up?      | 10 | L3 | CO1 |
| <b>OR</b>         |    |  |    |    |     |
| Q.2               | a. | Compare performance and energy efficiency in Traditional Vs Cloud-based systems. | 10 | L3 | CO1 |
|                   | b. | Illustrate the architectural difference between cluster and grid computing.      | 10 | L2 | CO1 |
| <b>Module – 2</b> |    |  |    |    |     |
| Q.3               | a. | Explain the different levels of virtualization implementation.                   | 10 | L2 | CO2 |
|                   | b. | List and explain types of hypervisors with examples.                             | 10 | L2 | CO2 |
| <b>OR</b>         |    |  |    |    |     |
| Q.4               | a. | Explain memory and I/O device virtualization with practical scenarios.           | 10 | L2 | CO2 |
|                   | b. | What are the advantages of virtual clusters over physical clusters.              | 10 | L1 | CO2 |
| <b>Module – 3</b> |    |  |    |    |     |
| Q.5               | a. | Compare the three primary cloud service models : IaaS, PaaS and SaaS.            | 10 | L3 | CO3 |
|                   | b. | Describe the cloud platforms : Google App Engine(GAE), AWS, and Azure.           | 10 | L2 | CO3 |
| <b>OR</b>         |    |  |    |    |     |
| Q.6               | a. | What is Inter-Cloud Resource Management? Why is it important?                    | 10 | L1 | CO3 |
|                   | b. | Explain the concept of federated cloud and its challenges.                       | 10 | L2 | CO3 |
| <b>Module – 4</b> |    |  |    |    |     |
| Q.7               | a. | What is Privacy Impact Assessment (PIA) in cloud computing?                      | 10 | L1 | CO4 |
|                   | b. | Compare OS-level security Vs VM level security in cloud.                         | 10 | L3 | CO4 |
| <b>OR</b>         |    |  |    |    |     |
| Q.8               | a. | Why is security a top concern in cloud computing?                                | 10 | L2 | CO4 |
|                   | b. | How does XOAR provide a trusted hypervisor environment?                          | 10 | L2 | CO4 |
| <b>Module – 5</b> |    |  |    |    |     |
| Q.9               | a. | How does MapReduce support distributed computing?                                | 10 | L2 | CO5 |
|                   | b. | What are emerging cloud software environments? Give examples.                    | 10 | L2 | CO5 |
| <b>OR</b>         |    |  |    |    |     |
| Q.10              | a. | Discuss application development or AWS using Lambda or EC2.                      | 10 | L2 | CO5 |
|                   | b. | Describe parallel computing paradigms in cloud platforms.                        | 10 | L2 | CO5 |

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