Cloud Computing
& Security
(BIS613D)
Department of ISE

Name: ....   **USN:** ....

Section: ....

Academic Year: 2025-2026 (Even SEM)

Task 1 (Marks 10, RBT Level – L2, CO1)

Briefly define the following basic techniques and technologies that represent recent related advances in computer architecture, parallel processing, distributed computing, Internet technology, and information services:

a. High-performance computing (HPC) system

b. High-throughput computing (HTC) system

c. Peer-to-peer (P2P) network

d. Computer cluster versus computational grid

e. Service-oriented architecture (SOA)

f. Pervasive computing versus Internet computing

g. Virtual machine versus virtual infrastructure

h. public cloud versus private cloud

i. Radio-frequency identifier (RFID)

j. Global positioning system (GPS)

Answer:

Task 2

Following exercise will help to understand buzz words in Cloud Computing
Explain the following terms briefly: (Marks 10, RBT Level – L2, CO2)

Cloud Computing
IaaS
PaaS
SaaS
Virtualization

Task 3

Following exercise will help you to understand cloud computing benefits, data centers and types of virtualizations. **(Marks 10, RBT Level – L3, CO3)**

1.Highlight the benefits of Cloud Computing in Market-Oriented Approach

2. Elaborate on four major advantages of using virtualized resources in cloud computing applications. Your discussion should address resource management issues from the provider's perspective and the application flexibility, cost-effectiveness, and dependability concerns by cloud users.

3.Illustrate Modular Data Center in Shipping Containers.

 Task 4

Following exercise will help you to understand Cloud Capabilities and Platform Features, Security concerns **(Marks 10, RBT Level – L3, CO4)**

1. Generate a Table for the following which highlights Cloud Capabilities and its Platform Features
- **Infrastructure Cloud Features**
- **Traditional Features in Cluster, Grid, and Parallel Computing Environments**
- **Platform Features Supported by Clouds and (Sometimes) Grids**

2. Illustrate the following terms associated with network threats or security defense in a distributed computing system: a. Denial of service (DoS) b. Trojan horse c. Network worm d. Service spoofing e. Authorization