

Roll.No.

**25UCGCT3004**

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai - 600 044.

B.Sc.Cs with CGS - END SEMESTER EXAMINATIONS - NOVEMBER 2025  
SEMESTER - III

**25UCGCT3004 - Virtualization and Cloud Computing**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### **Section B**

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Define Distributed Computing and explain any two of its applications.
2. Compare Distributed File System and Distributed Messaging System with examples.
3. Explain the five essential characteristics of Cloud Computing.
4. Describe the differences between Public, Private, Hybrid, and Community Clouds.
5. Explain the role of vCenter Server in VMware vSphere environment.
6. Discuss how resource management and monitoring are handled in vSphere.
7. Illustrate the working of vSphere High Availability (HA) with neat sketch.
8. Examine the importance of Data Center architecture in Cloud Computing.

### **Section C**

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Explain the structure and components of a distributed computing system with suitable examples.
10. Analyze the benefits and challenges of Cloud Computing compared to traditional IT infrastructure.
11. Evaluate the process of creating, managing, and monitoring virtual machines using vSphere.
12. Discuss vSphere Fault Tolerance and vSphere DRS. How do they improve system reliability?
13. Justify the role of modern Data Centers in enabling Cloud Computing environments.

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