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.C.A - END SEMESTER EXAMINATIONS - NOV'2024 SEMESTER - III 23UCACT3004 - Cloud Computing

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

- 1. Define Cloud Computing an explain why it is becoming increasingly important in today's technological landscape.
- 2. What is the Cloud Cube Model? Discuss its Components.
- 3. Briefly explain the different layers of cloud computing and their significance.
- 4. What is Virtualization? Briefly explain its types.
- 5. Define Service-Oriented Architecture (SOA) and describe its role in cloud computing.
- 6. Explain the challenges related to security in cloud computing.
- 7. What is Hadoop? Describe its role in cloud computing.
- 8. What is MapReduce? Describe its functionality in cloud computing.

Section C

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

- 9. Discuss the advantages and limitations of Cloud Computing. Support your discussion with real-world examples.
- 10. Compare and contrast the different deployment models of cloud computing.
- 11. Explain the concept of Virtualization Structures, Tools, and Mechanisms. How is virtualization implemented for CPU, Memory, and I/O devices?
- 12. Discuss the various resource provisioning methods in cloud computing. How do they help in effective resource management?
- 13. Analyze the Federation in cloud computing and explain the four levels of federation with examples.
