(Please write your Exam Roll No. *Exam Roll No. .....*

END TERM EXAMINATION

FIFTH SEMESTER [BCA] DECEMBER-2025

Paper Code: BCA-305 ***Subject: Cloud Computing***

Time: 3 Hours ***Maximum Marks: 60***

Note: Attempt five questions in all including Q.no.1 which is compulsory. Select one question from each unit.

Q1 Answer the following: **(4x5=20)**

a) What is SLA. Give life cycle of SLA, also write in detail importance of SLA.

b) Discuss in brief cloud computing vision, advantages, and challenges.

c) Explain IDaaS in terms of Cloud Computing security.

d) Give the difference between Full Virtualization, Partial Virtualization and Para Virtualization.

UNIT-I

Q2 a) The Cloud Reference Model defines multiple layers such as IaaS, PaaS, and SaaS, each with different responsibilities and user control. Evaluate how the separation of these layers impacts security, application development, and system administration. **(5)**

b) Which layer would you recommend for a startup focusing on rapid application deployment, and why? **(5)**

Q3 Apply your understanding of cloud computing by categorizing real world applications under public, private, hybrid, and community cloud models. Justify with suitable examples. **(10)**

UNIT-II

Q4 Explain Cloud Computing Architecture and Economics in Cloud computing. **(10)**

Q5 Elaborate on economy of scale in terms of software productivity of cloud. **(10)**

UNIT-III

Q6 What are the approaches to Distributed and Parallel Programming. List and explain any twotypes in detail. **(10)**

Q7 What is Law of Caution in terms of Parallel Programming. Explain Amdahl Law, Gustafson's Law and Brevity Law. **(10)**

UNIT-IV

Q8 a) What is virtualization in cloud? Elaborate Taxonomy of Virtualization in detail. **(5)**

b) Differentiate between VMware and Hyper – V. **(5)**

Q9 A system administrator must support a legacy Windows-only application on a Linux server. Evaluate which implementation level of virtualization is most appropriate for this scenario, justify your choice, and name a software tool that supports this approach. Evaluate the effectiveness of different types of hypervisors in managing virtual machines. Which type would you recommend for enterprise use and why? **(10)**

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