JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-8th Semester (CSE/IT)

COURSE CODE (CREDITS): 19B1WCI835 (3) MAX. MARKS: 15

COURSE NAME: CLOUD COMPUTING SECURITY

COURSE INSTRUCTOR: Dr Pankaj Dhiman, Ms Nitika MAX. TIME: 1 Hour

Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculators is not allowed

Q.No	Question	CO	Marks
Q1	Design a decision framework to choose between public, private, community, and hybrid cloud models for a healthcare organization.	1	3
Q2	An e-governance portal experiences a service outage for several hours during a major public service rollout. Although the cloud provider met its SLA, the application was unavailable. Analyze how poor cloud architecture design can lead to application downtime even when infrastructure availability is guaranteed.	1	3
Q3	Explain the concept of secure isolation in cloud computing. Why is isolation more critical in cloud environments than in traditional data centers.	2	3
Q4	The probability of a cyber-attack in a cloud system is 0.25. Without auditing, the probability of detecting the attack is 0.3, while with auditing it increases to 0.9. Calculate the probability of an undetected attack in both scenarios and quantify the security improvement achieved through auditing.	2	3
Q5	How does distributed system architecture influence consistency, availability, and partition tolerance in cloud environments?	1	3

141