JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-V Semester (CSE)

COURSE CODE (CREDITS): 20B1WCI532 MAX. MARKS: 15

COURSE NAME: CLOUD COMPUTING: CONCEPTS, TECHNOLOGY & ARCHITECTURE

COURSE INSTRUCTOR: PKG 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	a) What are the essential characteristics of cloud computing according to NIST (National Institute of Standards and Technology)? b) What is the role of virtualization in cloud computing? c) Explain the difference between IaaS, PaaS, and SaaS. d) Define Public Cloud, Private Cloud, and Hybrid Cloud. e) Explain the concept of multi-tenancy in cloud environments.	CO1	1X5=5
Q2	Compare and contrast full virtualization, paravirtualization, and hardware-assisted virtualization.	CO1	2
Q3	What are virtual machine (VM) snapshots, and how are they used in managing VMs?	CO1	2
Q4	You are tasked with deploying a web application that experiences variable traffic throughout the day. a) Which cloud model (IaaS, PaaS, SaaS) would you choose, and why? b) How would you design the architecture to handle traffic spikes efficiently?	CO2	3
Q5	How does a virtual appliance integrate with virtualization platforms like VMware, Hyper-V, or KVM?	CO2	3

JUIT TEST-1 EXAMINATION FEB-2026

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