

11/12 PM

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Make-up Examination-Nov-2025

COURSE CODE (CREDITS): 20B1WCI532 (02)

MAX. MARKS: 25

COURSE NAME: CLOUD COMPUTING: CONCEPTS, TECHNOLOGY & ARCHITECTURE

COURSE INSTRUCTORS: PKG, NKR, VNS

MAX. TIME: 1 Hour 30 Min

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

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

Q.No	Question	CO	Marks
Q1	a) What is on-demand self-service in cloud computing? b) What is a baseline in capacity planning , and why is it important? c) Explain pay-as-you-go pricing with a cloud example. d) Explain the concept of resource pooling with a practical example	CO1	4
Q2	What is Identity as a Service (IDaaS)? Discuss its role in enterprise security.	CO1	3
Q3	What is Compliance as a Service (CaaS), and why is it critical for healthcare and banking organizations?	CO2	3
Q4	A university is planning to adopt cloud-based e-learning platforms. Identify the most suitable service model (IaaS, PaaS, SaaS) and deployment model (Public, Private, Hybrid) with proper justification.	CO3	5
Q5	A startup hosts its web application on an IaaS provider. Each VM has 4 vCPUs costing \$0.10 per vCPU-hour and 8 GB RAM costing \$0.02 per GB-hour. They currently use 6 VMs running 24×7 for a month (720 hours). Due to budget constraints, they plan to reduce the number of VMs by 2 but upgrade each remaining VM to 6 vCPUs and 12 GB RAM. Compare the monthly costs before and after optimization. How much will they save?	CO4	5
Q6	A compliance service charges \$0.15 per GB per month for monitoring log data. <ul style="list-style-type: none"> • An organization generates 450 GB logs daily. • Logs are retained for 30 days. What is the total monthly compliance cost?	CO4	5