JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2024

B.Tech-VI Semester (CSE/IT/ECM)

COURSE CODE (CREDITS): 19B1WCI635 (02)

MAX. MARKS: 25

COURSE NAME: Architecting Distributed Cloud Applications

COURSE INSTRUCTORS: ARV

MAX. TIME: 1 Hour 30 Minutes

Note: (a) All questions are compulsory.

(b)Marks are indicated against each question in square brackets.

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

1. Describe the concept of containers in software development. Explain how containers differ from virtual machines and their advantages in modern application deployment architectures.

[CO-2][5]

2. Discuss the various fallacies and their effect on distributed computing. Describe the role of virtual machines (VMs) and containers in virtualization for distributed cloud applications.

[CO-3][5]

3. Discuss the advantages and disadvantages of using a forward proxy in a corporate network environment. Explain the concept of SSL termination and its role in reverse proxy configurations.

[CO-3][5]

4. What are service probes, and how do they contribute to the reliability of backend services in distributed cloud architecture? Explain the role of health checks in service probes and how they are used to monitor the availability and health of backend services.

[CO-3][5]

5. What is cluster DNS, and what role does it play in a distributed cloud environment? How does a service reverse proxy route incoming requests from clients to backend services? Discuss the role of a service reverse proxy in load balancing and improving performance for backend services.

[CO-3][5]