

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATIONS-2022

B.Tech-VI Semester (CSE/IT)

COURSE CODE (CREDITS): 19B1WCI635 (2)

MAX. MARKS: 35

COURSE NAME: Architecting Distributed Cloud Applications

COURSE INSTRUCTORS: Prof. Vivek Kumar Sehgal

MAX. TIME: 2 Hours

Note: All questions are compulsory. All questions carry equal marks.

1. Explain the following with supporting schematics diagrams
 - a. Packets traveling through the Internet are directed by a router that arranges them into a message.
 - b. The internetworking architecture of a private cloud.
 - c. The internetworking architecture of an Internet-based cloud deployment model.
2. (a) What are the common components of a data center working together to provide virtualized IT resources supported by physical IT resources?
(b) List and explain the types of IT resources which can be virtualized.
3. (a) What is the difference between Containerization Vs. Virtualization? Explain in detail.
(b) Explain for DTGOV data center:
 - i. server network connections
 - ii. storage system network connections
4. (a) Illustrates a scenario with more details, involving a remote administration system and both usage and administration and self-service portals.
(b) How do the SLA monitor mechanisms collect the SLA data that can then be made available in near-real time to usage and administration portals to provide ongoing feedback regarding active cloud services?
5. (a) How will you apply a hashing function to protect the integrity of a message that is intercepted and altered by a malicious service agent, before it is forwarded?
(b) List the common steps involved during the generation of certificates by a certificate authority.