

26/12/23 - FN.

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Question Paper Code : 20398

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023.

Fifth Semester

Computer Science and Design

CCS 335 – CLOUD COMPUTING

(Common to : Computer Science and Engineering/Computer Science and Engineering (Artificial Intelligence and Machine Learning)/Computer Science and Engineering (Cyber Security)/Computer and Communication Engineering/Artificial Intelligence and Data Science/Computer Science and Business Systems and Information Technology)

(Regulations 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Tabulate the Design challenges of cloud computing.
2. Distinguish between Public and Private Clouds.
3. What is the hypervisor?
4. Write the role of CPU Virtualization.
5. What are the benefits of Network Virtualization?
6. What is a Docker in Cloud Computing?
7. Summarize the service offerings by AWS.
8. Depict the benefits of OpenStack Compute.
9. What is hyperjacking?
10. List out the IAM challenges.

PART B — (5 × 13 = 65 marks)

11. (a) What are Peer-to-Peer Network Families? Describe the NIST cloud computing reference architecture with its components.

Or

- (b) Discuss the various cloud service, deployment models with neat sketch.

12. (a) What are the different implementation levels of Virtualization? Explain.

Or

- (b) Compare the terms Full Virtualization and Para Virtualization and depict the process of virtualizing CPU, memory, I/O devices.

13. (a) Compare and contrast the Physical Clusters and the Virtual Clusters and depict how resource management could be carried out in virtual machines.

Or

- (b) What are the different components of a Docker? Explain its need and use.

14. (a) What is Google App Engine? Describe the major building blocks and functional modules of the Google Cloud Platform with a diagram.

Or

- (b) What is Eucalyptus? Discuss its architecture by mentioning their role in filtering incoming traffic.

15. (a) Write a note about Guest hopping and VM Migration attacks. Provide realtime case studies for the same.

Or

- (b) What is Identity and Access Management? Describe its architecture. Depict the procedure to carry out IAM in AWS cloud platform.

PART C — (1 × 15 = 15 marks)

16. (a) Depict the taxonomy of virtual machines and narrate steps for launching a virtual server in AWS cloud platform.

Or

- (b) Depict the system requirements, software configuration, memory requirements for creating an e-commerce website in cloud platform with S3 storage and hosting the same in a laptop.