20MCA342

USN

Third Semester MCA Degree Examination, June/July 2024
Cloud Computing

Time: 3 hrs.
Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. What is Cloud Computing? Briefly discuss on prominent eras of computing. (10 Marks)
   b. Illustrate the vision of cloud computing with neat diagram. (10 Marks)

OR

2 a. Explain cloud computing reference model with neat diagram. (10 Marks)
   b. Describe in detail the core technologies that played an important role in the virtualization of cloud. (10 Marks)

Module-2

3 a. Compare Parallel computing Vs distributed computing. (04 Marks)
   b. Illustrate the different layers that are involved in providing the services of a distributed system. (08 Marks)
   c. Briefly, explain Data-centered category of software architectural styles in Distributed computing. (08 Marks)

OR

4 a. What is RPC? Describe RPC reference model with neat diagram. (10 Marks)
   b. Write a note on :
      i)   Virtual machine architecture
      ii) Client/Server architecture (10 Marks)

Module-3

5 a. Describe the characteristics of virtualization and its reference model with neat sketch. (10 Marks)
   b. Explain the machine reference model for execution of virtualization in detail. (10 Marks)

OR

6 a. Explain with neat diagram the Type – I and Type – II hypervisors. (10 Marks)
   b. Write a note on Microsoft Hyper – V. (10 Marks)

Module-4

7 a. Describe the basic components of an IaaS-based solution for cloud computing. (10 Marks)
   b. Briefly, explain the community clouds with neat diagram. (10 Marks)

OR

8 a. Describe the reference model of Platform-as-a-Shared (PaaS) with diagram. (10 Marks)
   b. Explain different challenges posed by cloud computing for industry and academia. (10 Marks)

Module-5

9 a. What is Aneka container? Which types of services are hosted inside the Aneka container? Explain in detail. (10 Marks)
   b. Describe in detail about the biology applications of cloud computing with respect to protein structure prediction in Jeeva portal. (10 Marks)

OR

10 a. Explain Google AppEnigne platform architecture with neat diagram. (10 Marks)
   b. List and explain productivity applications of cloud computing. (10 Marks)

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