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17CS742

Seventh Semester B.E. Degree Examination, July/August 2022
Cloud Computing and Its Applications

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? Discuss the characteristics and benefits of cloud computing. (08 Marks)
   b. Discuss different cloud computing platforms and technologies. (06 Marks)
   c. Discuss distributed systems in brief. (06 Marks)

OR

2 a. Explain hardware level virtualization with a neat diagram. (08 Marks)
   b. Explain Pros and Cons of virtualization. (06 Marks)
   c. Explain full virtualization binary translation with a neat diagram. (06 Marks)

Module-2

3 a. With a neat diagram, explain Paas reference implementation. (08 Marks)
   b. Discuss various types of clouds with required diagram and give their suitability in real world applications. (12 Marks)

OR

4 a. With a neat diagram, explain private cloud deployment mode and public cloud deployment made of Aneka. (10 Marks)
   b. Explain Aneka service model and service life cycle with a neat diagram. (06 Marks)
   c. Discuss Aneka management tools in brief. (04 Marks)

Module-3

5 a. Discuss the thread APIS in detail. (08 Marks)
   b. Compare and discuss Aneka threads Vs Common threads with thread life cycle in detail. (12 Marks)

OR

6 a. Discuss different computing categories for task computing. (06 Marks)
   b. Write a note on framework for task computing. (06 Marks)
   c. Explain abstract model of a work flow system with a neat diagram. (08 Marks)

Module-4

7 a. Discuss high performance distributed file system and storage clouds in detail. (08 Marks)
   b. With a neat diagram, explain google big table architecture. (08 Marks)
   c. Discuss the challenges in data Intensive computing. (04 Marks)

OR

8 a. Discuss the variations and extensions of Map-Reduce in brief. (08 Marks)
   b. Discuss the various alternatives of Map-Reduce.. (06 Marks)
   c. Write a short note on : (i) Apache Carrandra   (ii) Hadoop Hbare (06 Marks)

Module-5

9 a. Discuss the various compute services provided by the AWS. **(10 Marks)**

b. What is google App engine? Explain google App engine platform architecture with a neat diagram. **(10 Marks)**

OR

10 a. Write a note on: (i) Protein structure prediction and (ii) Satellite image processing using cloud. **(12 Marks)**

b. Explain Animato reference architecture with a neat diagram. **(08 Marks)**

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