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204MC006

Ph.D./M.S.(Engg.) by Research Degree Examination, December 2022
Cloud Computing

Time: 3 hrs. Max. Marks: 100

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

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1 a. What is cloud computing? Explain the structure of three delivery models with neat diagram. **(10 Marks)**

b. List and explain the Amazon Web Services. **(10 Marks)**

OR

2 a. Explain the core components and services of Microsoft Windows Azure with diagram. **(10 Marks)**

b. Explain the three open source software platforms for private clouds. **(10 Marks)**

Module-2

3 a. Describe the Architectural styles for cloud applications. **(10 Marks)**

b. Explain the Zookeeper State Machine model with diagram. **(10 Marks)**

OR

4 a. Describe the GrepTheWeb application case study. **(10 Marks)**

b. Explain Cloud Computing for Biology Research. **(10 Marks)**

Module-3

5 a. What is virtualization? Explain the Virtual Machine Monitors (VMM). **(10 Marks)**

b. Explain Full Virtualization and Paravirtualization with necessary diagrams. **(10 Marks)**

OR

6 a. Explain Hardware support for virtualization. **(10 Marks)**

b. Explain optimization of network virtualization in Xen2.0 with neat diagram. **(10 Marks)**

Module-4

7 a. Explain the policies and mechanisms for Resource Management. **(10 Marks)**

b. Describe the stability of two-level Resource allocation architecture with neat diagram. **(10 Marks)**

OR

8 a. Describe the Start-time Fair Queuing Algorithm. **(10 Marks)**

b. Explain Cloud Scheduling subject to deadlines. **(10 Marks)**

Module-5

9 a. Explain Cloud Security Risks. **(10 Marks)**

b. Explain Virtual Machine Security with neat diagram. **(10 Marks)**

OR

10 a. Explain security rules for application and transport layer protocols in EC2. **(10 Marks)**

b. Describe the Trust Management Services. **(10 Marks)**

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