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Question Paper Code : 20427

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2022.

Seventh/Eighth Semester

Computer Science and Engineering

CS 8791- CLOUD COMPUTING

(Common to : Computer and Communication Engineering/Information Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate between private cloud and public cloud.
2. Identify any four types of Cloud service development.
3. Infer the role of a Virtual Machine.
4. Define REST.
5. Identify any four design objectives of cloud computing.
6. Show the interaction between the Actors in the cloud computing.
7. How is security governance enforced in cloud computing?
8. List any four application areas in SaaS applications.
9. HDFS is fault tolerant. Justify your answer.
10. Define the Map reduce function.

PART B — (5 × 13 = 65 marks)

11. (a) Describe in detail about Elasticity in Cloud and On-demand Provisioning.

Or

- (b) Explain the following:

- (i) Infrastructure requirements for Cloud computing. (7)
- (ii) Evolution of cloud computing. (6)

12. (a) Discuss how virtualization is implemented in different layers of cloud in detail.

Or

- (b) Explain the layered architecture of SOA for web services with a neat sketch.

13. (a) Explain about the NIST Cloud Computing Reference Architecture.

Or

- (b) Elucidate Private-cloud and Hybrid-cloud with advantages and disadvantages.

14. (a) Elaborate inter cloud resource management with a neat diagram.

Or

- (b) Summarize the methods for providing data security and virtual machine security in cloud.

15. (a) Explain the four different levels of cloud federation.

Or

- (b) Explain the following:

(i) Functional Modules of GAE. (7)

(ii) Open Stack. (6)

PART C — (1 × 15 = 15 marks)

16. (a) Integrate Map and Reduce functions and explain how input splitting can be performed in Hadoop framework.

Or

- (b) Illustrate the security architecture design of a cloud environment and relate how it can be made possible to include such measures in a typical banking scenario.