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B.TECH. (SEM VII) THEORY EXAMINATION 2022-23 CLOUD COMPUTING

Time: 3 Hours Total Marks: 100

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

 $2 \times 10 = 20$

- (a) Compare parallel computing and distributed computing.
- (b) What are the service models available in cloud computing?
- (c) Express the levels of virtualization.
- (d) Illustrate Web services.
- (e) Differentiate Public cloud and Private cloud.
- (f) List out the characteristics of SaaS.
- (g) List the security issues in cloud.
- (h) Define security governance.
- (i) List the functional models of GAE.
- (j) What is the use of cloud Watch in Amazon EC2°

SECTION B

2. Attempt any three of the following:

10x3 = 30

- (a) Describe in detail about major Deployment Models and services for cloud computing.
- (b) Illustrate the three major components of virtualized environment.
- (c) Give the diagram of Cloud Computing Reference Architecture. Illustrate in detail about the Conceptual Reference Model of cloud.
- (d) Illustrate the following in detail
 - i. Demand-Driven Resource Provisioning
 - ii. Event-Driven Resource Provisioning
- (e) Elaborate HDFS concepts with suitable illustrations.

SECTION C

3. Attempt any *one* part of the following:

10x1=10

- (a) Describe in detail about cloud computing reference model with diagram.
- (b) List out and discuss the innovative characteristic of cloud computing.

4. Attempt any *one* part of the following:

10x1=10

- (a) Describe in detail about the REST a software architecture style for distributed systems.
- (b) Analyze the pros and cons of virtualization in detail.

5. Attempt any *one* part of the following:

10x1=10

- (a) List and discuss the principles for designing public cloud, private cloud and hybrid cloud.
- (b) Describe Cloud deployment models with neat diagrams.

6. Attempt any *one* part of the following:

10x1=10

- (a) Describe the Secure Software Development Life Cycle with neat diagram.
- (b) Explain in detail about security monitoring and incident response.

7. Attempt any *one* part of the following:

10x1=10

- (a) Describe the following in detail
 - i. Google Cloud Infrastructure
 - ii. GAE Architecture
- (b) Illustrate any five web services of Amazon in detail.