

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

Time: 3 Hours**Total Marks: 70****Note:** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 2 x 7 = 14

- (a) What are the major advantages of cloud computing?
- (b) What is REST?
- (c) Define IAM.
- (d) What are the advantages of SaaS?
- (e) Explain private cloud.
- (f) Define open stack.
- (g) What are the features of Hadoop?

SECTION B

2. Attempt any three of the following: 7 x 3 = 21

- (a) Discuss the cloud computing reference model.
- (b) List and discuss various types of virtualization.
- (c) What are the Services provided by PaaS? Discuss in detail.
- (d) What is resource provisioning? What are the various resource provisioning Methods?
- (e) What are the new technologies in cloud? Discuss Google App Engine in detail.

SECTION C

3. Attempt any one part of the following: 7 x 1 = 7

- (a) Explain the Principles of Parallel and Distributed Computing.
- (b) What are the various characteristics of cloud computing? Explain any one in detail.

4. Attempt any one part of the following: 7 x 1 = 7

- (a) Explain Service Oriented Architecture (SOA). What is full-virtualization?
- (b) Why is virtualization important? Describe the characteristics of server virtualization and application virtualization.

5. Attempt any one part of the following: 7 x 1 = 7

- (a) Explain layered cloud architecture.
- (b) Discuss the architectural design challenges in hybrid clouds.

6. Attempt any one part of the following: 7 x 1 = 7

- (a) Discuss, in detail, identity management and access control that are needed for secure cloud computing.
- (b) What are basic requirements of secure cloud software?

7. Attempt any one part of the following: 7 x 1 = 7

- (a) What is cloud federation? Explain its four levels.
- (b) What is purpose of using map reduce in cloud computing? What are the major functionalities of Hadoop API?