

B.TECH.
(SEM VIII) 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 x 10 = 20

- (a) Define the cloud computing and list the characteristics of the cloud computing.
- (b) Differentiate between grid computing and cloud computing.
- (c) List the examples of communication as a service of cloud computing.
- (d) Discuss the relation of the edge computing and fog computing to cloud computing.
- (e) Discuss the cloud collaboration. Explain the benefits of cloud collaboration?
- (f) Define the Google Calendars and their importance.
- (g) Describe the need of virtualization.
- (h) Define HLL VM.
- (i) List down the security issues in cloud.
- (j) List the most common messaging standards used in the cloud.

SECTION B

2. Attempt any three of the following: 10x3=30

- (a) Draw the cloud architecture and explain each type of component in the cloud computing architecture and the various types of cloud.
- (b) There are various market player of cloud computing like amazon, google, microsoft and IBM. List the various products of these companies for each services of cloud computing.
- (c)
 - (i) Illustrate web-based scheduling programs.
 - (ii) Discuss the significant advantages of managing the projects online.
- (d) Explain virtualization and all its types in detail with proper examples.
- (e) Describe SaaS security and discuss the importance of SaaS Security. Discuss the elements which makes SaaS applications risky.

SECTION C

3. Attempt any one part of the following: 10x1=10

- (a) Explain any two in detail:
 - (i) Eucalyptus
 - (ii) Nimbus
 - (iii) Open Nebula
 - (iv) CloudSim
- (b) Describe the potential drawbacks or challenges of using cloud computing, and discuss the process of their mitigation.

4. Attempt any *one* part of the following: 10x1=10

- (a) Explain the services of cloud computing with some example of each service.
- (b) Explain the role of cloud computing services with data storage and management and also explain the role of cloud computing services in reducing the businesses costs?

5. Attempt any *one* part of the following: 10x1=10

- (a) Discuss the contact management and CRM.
- (b) Discuss the term events in the cloud? Define collaborative event management and explain various event management applications.

6. Attempt any *one* part of the following: 10x1=10

- (a) Explain hypervisor. Also explain type 1 & type 2 hypervisor with diagrams.
- (b) Explain any two virtualization products:
 - (i) Xen
 - (ii) KVM
 - (iii) VMware
 - (iv) Virtual Box

7. Attempt any *one* part of the following: 10x1=10

- (a) Illustrate the role of standards. Explain the standards for application developers in details.
- (b) Explain any two virtualization products:
 - (i) Hadoop
 - (ii) MapReduce
 - (iii) Virtual Box
 - (iv) Google App Engine