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