Sub Code: RCS075

Paper Id: 110725 Roll No: | | | | | | | | | | | | |

**B. TECH.**
**(SEM VII) THEORY EXAMINATION 2019-20**
**CLOUD COMPUTING**

***Time: 3 Hours*** ***Total Marks: 70***

**Note: 1.** 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 is Cloud Eco System?
b. Differentiate between distributed Computing and Cloud Computing.
c. Explain Grid Computing.
d. Explain Hybrid Cloud.
e. Differentiate between public and private cloud.
f. What do you mean by full virtualization?
g. What are the major challenges faced in cloud?

**SECTION B**

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

a. Illustrate the cloud adoption discussing its several policies.
b. What is a Hypervisor? Explain in detail with necessary illustrations.
c. What is the difference between process virtual machines, host VMMs and native VMMs.
d. What are cloud security challenges? How is security provided to data at various stages in context of cloud?
e. Explain the characteristics and type of virtualization in Cloud Computing.



**SECTION C**

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

(a) How Cloud Computing provides scalability and fault tolerance?
(b) Explain Virtual LAN(VLAN) and Virtual SAN(VSAN) in cloud computing.

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

(a) Explain the Cloud Computing security architecture using suitable block diagram.
(b) What is the importance of a virtual machine? What role do they play in cloud computing?

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

(a) What are the major functionalities of Hadoop API?
(b) Explain the Cloud management and Services Creation Tools?

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

(a) What do you understand by service oriented architecture (SOA)? How does it support cloud computing?
(b) Draw the architecture and explain the importance of workflow management systems in cloud.

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

(a) Identify NIST cloud computing reference architecture with a neat schematic diagram.
(b) Explain the migration of memory, files and network resources in detail.