Seat No.	

B.E. (C.S.E.) (Part - IV) (Semester - VII) (Revised) Examination, April - 2018
DISTRIBUTED SYSTEMS (Revised)
Sub. Code : 67542

Day and Date : Wednesday, 25- 4 - 2018 **Total Marks : 100**
Time : 2.30 p.m. to 5.30 p.m.

Instructions :
1) **Question 4 & 8 are compulsory, attempt any two questions from Questions 1 to 3 in section - I and Questions 5 to 7 in section - II.**
2) **Figures to the right side indicate full marks.**

SECTION - I

Q1) a) Explain different types of transparency in distributed systems. **[8]**

b) Discuss scalability limitations in distributed systems. **[8]**

Q2) a) What is a socket? Explain different socket primitives for TCP/IP that are used in Berkeley Sockets. **[8]**

b) What is logical clock? Explain Lamport's Logical Clock algorithm. **[8]**

Q3) a) Explain basic NFS (network file systems) architecture for UNIX systems. **[8]**

b) Explain Client-Side caching in Coda file system. **[8]**

Q4) Write note on **[3 × 6]**

a) Election algorithms (Bully and Ring)

b) Properties of distributed systems.

c) Process communication in Flat Groups versus Hierarchical Groups.

SECTION - II

Q5) a) Explain in detail various components of cloud computing. [8]

b) Explain public cloud, private cloud, community cloud and hybrid cloud in detail. [8]

Q6) a) What are different techniques that implement virtualization at the OS level? Discuss in detail. [8]

b) Explain hosted virtualization, what are its benefits and drawbacks? [8]

Q7) a) How data confidentiality and encryption play important role in cloud? Explain in detail. [8]

b) What do you mean by Cloud Storage Gateways (CSGs)? What are different features CSGs has to provide? Explain. [8]

Q8) Write short notes (attempt any three) [3 × 6]

a) Binary translation with full virtualization.

b) Virtualization of CPU, Memory, and I/O devices.

c) Platform as a service (PaaS).

d) Software as a service (SaaS).

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