

Seat No.	
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B.E. (CSE) (Semester - VII) Examination, May - 2019

DISTRIBUTED SYSTEMS (Revised)

Sub. Code : 67542

Day and Date : Thursday, 02 - 05 - 2019

Total Marks : 100

Time : 02.30 p.m. to 05.30 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 distributed system architecture. [8]
 b) Explain role of TP monitor 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) Compare two phase commit and three phase commit in distributed transaction. [8]
- Q3)** a) Explain basic RPC2 subsystem in Coda file system. [8]
 b) How nested directories mount from multiple servers in NFS. [8]
- Q4)** Write notes on : [3 × 6 = 18]
 a) Goals of distributed systems.
 b) Berkeley Algorithm for clock synchronization in distributed system.
 c) UNIX semantics and session semantics to share files in distributed systems.

SECTION - II

- Q5)** a) What do you mean by virtualization? What are the benefits of virtualization? [8]
 b) Explain in detail different levels at which virtualization is implemented. [8]

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- Q6) a)** Explain-bare metal virtualization along with its benefits and drawbacks. [8]
b) Discuss various data-related challenges that occur in the cloud. [8]

- Q7) a)** Explain different primary mechanisms used for virtualization of the systems. [8]
b) How data confidentiality and encryption play important role in cloud? Explain in detail. [8]

- Q8) Write Short notes (attempt any three) :** [3 × 6 = 18]

- a) Software as a service (SaaS).
- b) Database as a Service (DbaaS).
- c) Paravirtualization with compiler support.
- d) Virtualization of CPU, Memory, and I/O devices.

