



**BHARATIYA VIDYA BHAVAN'S**

## **SARDAR PATEL INSTITUTE OF TECHNOLOGY**

MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058, India

(Autonomous College Affiliated to University of Mumbai)

### **END Semester Examination**

Max. Marks: 100

Class: TYMCA

Course Code: MCA504

Subject: Distributed Computing and Cloud Computing

Duration: 3 hours

Semester: V

Date: 21/12/2017

Time: 10 AM to 1 PM

#### **Instructions:**

- (1) All questions are compulsory.
- (2) Use of scientific calculator is allowed.
- (3) Assume any necessary data but justify the same.

Question No.		Max. Marks	CO
Q1 (a)	Explain different distributed computing model.	10	CO1
Q1 (b)	What are the different message buffering strategies in IPC? OR What is IPC and its advantages? Explain different components of IPC message.	10 10	CO1 CO1
Q2 (a)	Explain different clock synchronization algorithms. OR Explain ring election algorithm.	10 10	CO2 CO2
Q2 (b)	What is clock synchronization? Explain physical clock? What is clock skew?	10	CO2
Q3 (a)	Explain address space transport mechanism in process migration. OR Explain DSM consistency models.	10 10	CO3 CO3
Q3 (b)	Explain different methods used for data location in DSM. OR Explain different components and desirable features of DFS.	10 10	CO3 CO3
Q4 (a)	What are the key components of SOA and technology used in SOA?	10	CO4
Q4 (b)	Explain different types of clouds with example. OR Differentiate between RPC centric view and Document Centric view. Explain Composing services.	10 10	CO4 CO4
Q5 (a)	Explain IaaS, PaaS, SaaS, MaaS and CaaS in detail. What are the benefits of cloud computing?	10	CO5
Q5 (b)	Explain Hadoop and Mapreduce technologies used to implement cloud.	10	CO5