Reg. No.

# MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL

*A Constituent Institution of Manipal University*

## II SEMESTER M.C.A.
## END SEMESTER EXAMINATION – APR/MAY 2017
### (REVISED CREDIT SYSTEM)

### SUBJECT: DISTRIBUTED COMPUTING SYSTEMS [MCA 5002]
25-04-2017

Time : 3 hours                                                      Max. Marks : 50

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### Instructions to Candidates
1. Answer ALL questions.
2. Missing data may be suitably assumed.

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| 1A | Compare various variants of client server communication model. | 5 |
| 1B | List out the various types of transparencies expected by distributed system | 3 |
| 1C | Compare computer networks and distributed System | 2 |
| | | |
| 2A | Explain distributed object model and its implementation using RMI and RPC. | 5 |
| 2B | Explain the fundamental models of distributed system. | 3 |
| 2C | Describe the architectural model of the distributed system. | 2 |
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| 3A | Write a UDP based client-server java program to send a string from client and the server has to check the received string is palindrome or not and send the message back to the client. | 5 |
| 3B | Explain remote procedure call in distributed system. | 3 |
| 3C | Explain Name Services and the Domain Name System | 2 |

| 4A | Explain client server communication using HTTP. | 5 |
| 4B | Explain the Sun network file systems. | 3 |
| 4C | Compare thread and multiple processes. | 2 |

| 5A | Explain logical clock and vector clock. List out the advantages and disadvantages of both. | 5 |
| 5B | Compare preemptive and non-preemptive type of thread scheduling. | 3 |
| 5C | Discuss event and notifications in distributed system. | 2 |