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| **ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27** |
| **M.Sc COMPUTER SCIENCE - IV SEMESTER** |
| **SEMESTER EXAMINATION: APRIL 2018** |
| **CS 0115 - Distributed Systems** |
|  |  |  |  |  |  |
| **Time- 2 1/2 hrs** |  | **Max Marks-70** |
|  |  |  |  |  |  |
| **This paper contains ONE printed page and ONE part** |
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**Answer any SEVEN questions (10X7 )**

1. a) Define a Distributed system. (2)

b) What are the advantages of Distributed system ? (3)

c) Explain any 3 design issues in Distributed system. (5)

1. a)Explain Reliable verses Unreliable primitives in client server model . (5)

b) Differentiate between Closed group and open group in group communication. (5)

1. Explain in detail about Asynchronous Transfer Mode protocol with a neat diagram .(10)
2. Write in detail about any two Election algorithms in Distributed system. (10)
3. a) Explain distributed Mutual Exclusion algorithm. (5)

b) Write in detail about Locking in concurrency control. (5)

1. a) What is deadlock? Identify some problems that may arise due to deadlock. (3)

b)Explain Centralized Deadlock detection in Distributed system. (7)

1. a)Define Thread . (2)

b)Define Fault Tolerance. (2)

c) Write in detail about processor pool model. (6)

1. a) Explain semantics of File sharing. (5)

b)Explain Cache Consistency in distributed file system. (5)

 9. a) What is Shared Memory? (3)

 b) Explain Sequential and Casual Consistency in Distributed Shared Memory. (7)