

2E9103

Roll No. \_

rtuonline.com

Total No of Pages: 2

2E9103

M. Tech. II Sem. (Main / Back) Exam., May - 2017

Computer Engineering  
2MCS3 Distributed Algorithms

Time: 3 Hours

Maximum Marks: 100

Min. Passing Marks: 33

rtuonline.com

Instructions to Candidates:-

Attempt any five questions. Marks of questions are indicated against each question. Draw neat and comprehensive sketches wherever necessary to clearly illustrate your answer. Assume missing data suitably if any and specify the same.

Use of following supporting material is permitted during examination.  
(Mentioned in form No. 205)

1. NIL

2. NIL

Q.1 (a) Write the code for the synch BFS algorithm and Explain synch BFS algorithm. [14]

(b) Write short note on Breadth First Search. [6]

rtuonline.com

Q.2 Write and explain various computing elements of synchronous network system with the help of suitable diagram. [20]

Q.3 (a) Explain asynchronous shared memory system along with shared variable types. [14]

(b) Write short note on complexity measures in asynchronous shared memory system. [6]

rtuonline.com

[2E9103]

Page 1 of 2

[420]

rtuonline.com

Q.4 What is mutual exclusion problem? Explain Dijkstra's mutual exclusion algorithm in detail. [20]

Q.5 (a) Explain Leader Election problem in a general network along with solutions. [12]

(b) Write short note on Asynchronous Networks & Failures. [8]

Q.6 Explain Asynchronies Broadcast Systems and Asynchronous Multicast Systems in detail. [20]

rtuonline.com

Q.7 (a) How can you transform network model to shared memory model? Explain with justification. [12]

(b) Explain three phase commit termination protocol. [8]

Q.8 Write short notes on following:-

(a) Distributed Consensus with Failures [12]

(b) Minimum Spanning Tree. [8]

rtuonline.com

rtuonline.com

[2E9103]

Page 2 of 2

[420]