

101704

Dec., 2018

B.TECH 7th SEMESTER CE/IT (UNDER CBS)**DISTRIBUTED OPERATING SYSTEM****(CE-407)**

Time : 3 Hours]

[Max. Marks : 60

Instructions:

- (i) *It is compulsory to answer all the questions of Part-1. Limit your answers within 20-40 word in this part.*
- (ii) *Answer any four questions from Part-2 in detail.*
- (iii) *Different parts of the same question are to be attempted adjacent to each other.*
- (iv) *Assume suitable standard data wherever required, if not given.*

PART-1

1. (a) Give main 2 technical differences between Network OS and Distributed OS. (2)
- (b) List basic transparency needed to be supported distributed system. (2)
- (c) Explain the significance of Vector-Clock condition. (2)

- (d) What are casually related even? (2)
- (e) What are Stateless and stateful servers? (2)
- (f) What are different Real time distributed systems? (2)
- (g) Explain parameter Marshalling. (2)
- (h) What is Write-through protocol? (2)
- (i) Define false deadlock. (2)
- (j) Explain the function of Bootstrap port. (2)

PART-2

- 2. (a) What are the design issues involved in Distributed Systems? (5)
- (b) Describe RPC Semantics in case of failures. (5)
- 3. (a) What are different methods of Deadlock Prevention in Distributed System? (5)
- (b) Compare various Mutual Exclusion algorithms. (5)
- 4. (a) Explain Ring based multiprocessors. (5)
- (b) Explain various ways of replication in DFS. (5)
- 5. (a) Describe how the threads can be organized in different forms. (5)
- (b) Explain the need of Clock synchronization in detail. (5)

- 6. What are the Consistency models in distributed shared memory? Explain page based distributed shared memory. (10)
- 7. Explain process management in MACH in detail. (10)