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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belgaum)
Seventh Semester, B.E. - Information Science and Engineering
Semester End Examination; Dec. - 2015
Distributed Operating System

Time: 3 hrs   *Max. Marks: 100*

Note: *Answer any **FIVE** full questions, selecting at least **TWO** full questions from each part.*

PART - A

1 a.	Define distributed system. What are the advantages of distributed system? Explain.	10
b.	How do you achieve single system image representation using a distributed system? Explain.	10
2 a.	What is message passing system? Explain the message structure with a neat format structure.	10
b.	What is idempotency? Explain how duplicate request message are handled with an example.	10
3 a.	Explain the working of RPC with a neat block diagram.	10
b.	Explain server creation semantics and call semantics of RPC.	10
4 a.	Explain granularity in distributed shared memory.	8
b.	Explain strict consistency model and release consistency model in DSM.	8
c.	What is Thrashing? What are the methods for solving thrashing problems?	4

PART - B

5 a.	Explain distributed mutual exclusion algorithm with example of 4 competing processes with time stamp 4, 8, 6, 10 respectively.	10
b.	What is dead lock? Explain centralized deadlock detection process.	10
6 a.	Explain the desirable features of a good global scheduling algorithm.	10
b.	What are the various categories of load balancing algorithms? Explain.	10
7 a.	List and explain desirable features of a good process migration mechanism.	10
b.	What are the motivations for using threads? Explain the three models of thread.	10
8 a.	Explain different file-sharing semantics in DFS.	10
b.	Explain modification propagation file caching scheme in detail.	10

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