

Total No. of Questions : 12]

B. E. computer sem - II  
May - June - 2012  
SEAT No. :

P1467

[Total No. of Pages : 2

[4164] - 709

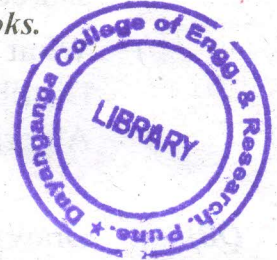
**B.E. (Computer Engineering)**  
**DISTRIBUTED OPERATING SYSTEMS**  
**(2008 Pattern) (Sem. - II)**

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate books.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Assume suitable data, if necessary.



**SECTION - I**

- Q1) a) Explain what is meant by absolute ordering, consistent ordering and causal ordering of messages? Give a mechanism to implement each one. [8]
- b) Differentiate between monolithic kernel and microkernel approaches for designing DOS. [4]
- c) What is piggybacking of a message? How does it help in reducing network traffic? Give some examples of where the piggybacking scheme may be used to improve the performance in distributed system. [6]

OR

- Q2) a) What is stub? How are stubs generated? Explain how the stubs will help in making RPC mechanism transparent. Also explain the steps in creating an RPC application in brief. [10]
- b) Why scalability is an important feature in the design of Distributed operating system? [4]
- c) Why distributed computing systems are gaining more popularity? [4]

- Q3) a) What is global state in distributed system and explain how it can be represented? [6]
- b) Discuss the various commonly used models for building distributed Computing systems. [10]

OR

- Q4) a) Explain with suitable example how causality can be captured with vector timestamps. [6]
- b) Explain and compare Bully and ring election algorithms. [10]
- Q5) a) Explain Suzuki-Kasami's broadcast algorithm. Compare it with Ricart Agarwala Algorithm. [8]

P.T.O.

