

Distributed Systems

P. Pages : 2

Time : Three Hours



AHK/KW/19/2464

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Assume suitable data whenever necessary.
 9. Illustrate your answers whenever necessary with the help of neat sketches.

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|----|----|--|---|
| 1. | a) | What the inherent limitations of distributed system? | 6 |
| | b) | Describe distributed computing models. | 7 |

OR

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|----|----|---|---|
| 2. | a) | Draw and explain client – server model. | 7 |
| | b) | Enlist and explain the design issues in Distributed system. | 6 |
| 3. | a) | What the advantages and features of message passing? | 6 |
| | b) | Describe in detail remote procedure call. | 8 |

OR

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|----|----|--|---|
| 4. | a) | Draw and explain Remote object invocation. | 8 |
| | b) | What are the disadvantages of message oriented communication? | 6 |
| 5. | a) | Describe causal ordering of messages and explain how it can be implemented by a system of logical clock. | 7 |
| | b) | Explain Election Algorithm in detail. | 6 |

OR

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|----|--|---|---|
| 6. | Define the problem of distributed mutual exclusion. What are the performance metrics for the distributed mutual exclusion algorithms? Explain with a suitable example. | 13 | |
| 7. | a) | Differentiate between Resources and communication. | 7 |
| | b) | Explain the deadlock handling strategies in distributed system. | 7 |

OR

8. a) Explain the control organization of distributed deadlock detection. 7
b) Explain path pushing algorithm in detail. 7
9. a) What are the issues of distributed shared memory? 7
b) Write short note on Granularity. 6

OR

10. a) Describe structures of shared memory space. 7
b) What are the advantages of DSM. 6
11. a) Describe in detail the desirable features of good distributed file system. 7
b) What are the different caching methods available? Explain. 6

OR

12. Write short note on. 13
i) File Replication.
ii) Fault tolerance.
iii) CORBA RMI and services.
