Reg. No. :

Question Paper Code: 31264

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Sixth Semester

Computer Science and Engineering

01UCS604 - DISTRIBUTED SYSTEMS

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What are the challenges faced in building a distributed system?

2. List the applications of distributed system.

3. Define remote interface.

4. What is meant by Java Remote Method Invocation?

5. Compare any two routing overlays.

6. Write short notes on DNS.

7. List the essential requirements for mutual exclusion.

8. Discuss about physical clocks and logical clocks.

9. What is meant by load balancing approach?

10. Define threads.

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Discuss the characteristics of distributed systems. (8)

    (ii) What are the various web challenges in distributed systems? (8)

    Or

    (b) Explain transparency in distributed systems and give examples for different types of transparencies. (16)

12. (a) How is remote procedure call handled in distributed systems? (16)

    Or

    (b) (i) Explain the factors that motivate the hybrid scheduling approach of the scheduler activation design. (8)

    (ii) Explain how shared region could be used for a process to read the data written by the kernel. (8)

13. (a) Explain about file service architecture. (16)

    Or

    (b) (i) What security issues are liable to be relevant to a directory service such as X.500 operating within an organization. (8)

    (ii) What is the use of name cache? Describe the methods of name resolution with suitable diagrams. (8)

14. (a) What are the various distributed physical clock synchronization algorithms? List their advantages and disadvantages. (16)

    Or

    (b) Write short note on

    (i) Bully algorithm (8)

    (ii) Ring algorithm (8)

15. (a) What is thread? Explain about its model, issues and implementation. (16)

    Or

    (b) Discuss various scheduling algorithms. (16)

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