Reg. No. : | | | | | | | | | | |

Question Paper Code: 36204

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

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 is the main objective of distributed systems? What are the challenges?
2. Define heterogeneity.
3. Compare and contrast RMI with RPC.
4. What is meant by Java Remote Method Invocation?
5. Compare any two routing overlays.
6. Write short notes on DNS.
7. Differentiate between logical clock and physical clocks.
8. Discuss about physical clocks and logical clocks.
9. What is process migration?
10. Differentiate between load balancing and load sharing approaches.

PART - B (5 x 16 = 80 Marks)

11. (a) List the design issues in distributed systems. Discuss in detail about the scalability, heterogeneity and reliability issues. (16)

Or

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

12. (a) Discuss the various form of external data representation. (16)

Or

(b) Discuss the design and implementation issues in publish-subscribe systems and Message Queues. (16)

13. (a) What is name resolution? Describe the methods of name resolution with suitable diagrams. (16)

Or

(b) Discuss the case study of the Andrew file system. (16)

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

Or

(b) Explain about atomic commit protocols and distributed deadlocks. (16)

15. (a) Discuss in detail about process migration mechanisms. (16)

Or

(b) Briefly discuss about task assignment approach with suitable example. (16)

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