Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 50396

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

Sixth Semester

Computer Science and Engineering

CS 6601 – DISTRIBUTED SYSTEMS

(Common to : Information Technology)

(Regulations 2013)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions.

PART – A   (10×2=20 Marks)

1. Define Transparency.

2. List any two resources of hardware and software, which can be shared in distributed systems with example.

3. What are the three types of communication paradigm in distributed system ?

4. Differentiate persistent and non-persistent connections.

5. Give the characteristics of peer-to-peer middleware.

6. What is naming and locating facility ?

7. What are the techniques used to synchronize clocks ?

8. Write down the types of messages in Bully algorithm.

9. What thread operations are the most significant in cost ?

10. What are the priority assignment policies ?

PART – B   (5×16=80 Marks)

11. A) Write a brief note on each of the challenges of distributed systems.   (16)

    (OR)

    B) Elucidate the trends in distributed systems.   (16)

12. A) Explain in detail about the fundamental model of communication in distributed
       systems.   (16)

    (OR)

    B) Explain in detail the RPC architecture with the functionality of its components. (16)

13. A) Discuss about the Pastry Routing Algorithm in detail.   (16)

    (OR)

    B) i) Briefly describe about the file accessing models in distributed environment. (10)
       ii) What is name cache ? List out its types. Also discuss about the working of
           LDAP.   (3+3)

14. A) i) Examine how mutual exclusion is handled in distributed system.   (8)
       ii) Examine briefly about global states.   (8)

    (OR)

    B) i) Discuss in detail about one phase and two phase atomic commit protocol
          (flat and hierarchical).   (8)
       ii) Write in detail about CODA.   (8)

15. A) Define threads. Explain all multithreading models and thread issues.   (16)

    (OR)

    B) List out the issues in load balancing algorithm. Discuss about any four policies
       of load balancing algorithm.   (16)

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