10EC831

Eighth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Distributed System

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, selecting at least TWO questions from each part.*

PART – A

1   a.   What is a distributed system? Give examples of distributed systems and explain in brief. **(10 Marks)**
    b.   Discuss the various challenges in the design of distributed system. **(10 Marks)**

2   a.   Explain the challenges of distributed system. **(10 Marks)**
    b.   Describe software layers briefly. **(10 Marks)**

3   a.   Describe the characteristics of inter process communication. **(04 Marks)**
    b.   Explain the Request Reply Protocol (RRP) based on trio of communication primitives. **(10 Marks)**
    c.   List out some outstanding issues related to datagram communication. **(06 Marks)**

4   a.   List the characteristics of inter process communication and explain each. **(10 Marks)**
    b.   What is a socket? Write a java program for UDP client sends a message to the server and gets a reply. **(10 Marks)**

PART – B

5   a.   Explain cipher block chaining and stream ciphers. **(12 Marks)**
    b.   Explain the digital signature with public keys. **(08 Marks)**

6   a.   Describe digital signatures with public keys. **(10 Marks)**
    b.   Describe Cipher block chaining with cryptographic algorithm. **(10 Marks)**

7   a.   With suitable diagrams, explain bully election algorithm. **(08 Marks)**
    b.   What are the performance metrics for mutual exclusion? Explain. **(06 Marks)**
    c.   List and explain the ordered multicast communication. **(06 Marks)**

8   a.   List out the POA design goals? Explain the POA architecture. **(10 Marks)**
    b.   Write short notes on :
          i)   CORBA event service
          ii) Failure model. **(10 Marks)**

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