Reg. No.

BCACAC 315

Credit Based Fifth Semester B.C.A. Degree Examination, Oct./Nov. 2014
(New Syllabus) (2014-15 Batch)
DISTRIBUTED COMPUTING

Time : 3 Hours Max. Marks : 100

Note : *Answer* ***any ten*** *questions from Part – **A** and* ***one full*** *question from* ***each*** *Unit of Part – **B**.*

PART – A **(2×10=20)**

1. a) What is monolithic computing ?
   b) What is the difference between program and process ?
   c) What is an event diagram ?
   d) Expand : RMI, RPC, SSL, JSSE.
   e) What are UDP and TCP ? Why they are used ?
   f) What are the two types of sockets in stream mode socket API ?
   g) What are iterative and concurrent servers ?
   h) What do you mean by Daytime service ?
   i) What is unreliable multicast ?
   j) List any four toolkits of distributed object systems.
   k) What is Stub downloading ?
   l) What do you mean by Java Remote Interface ?

PART – B

UNIT – I

2. a) Explain the strengths and weaknesses of distributed computing.
   b) Explain with diagram IPv4 address scheme.
   c) Write a note on Asynchronous Send and Asynchronous Receive. **(8+6+6)**

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3. a) Write and explain the different forms of computing.
   b) Explain simplified state transition diagram of a process.
   c) Write a note on Distributed Application. **(10+5+5)**

UNIT – II

4. a) With neat diagram explain the Remote Procedure Call.
   b) Explain the Object space paradigm with a neat diagram.
   c) Write a note on Secure Socket API. **(8+6+6)**

5. a) What do you mean by stream-mode socket API ? Explain with diagram and also write the program flow.
   b) Explain Connectionless Datagram Socket with a diagram.
   c) Explain the Message system paradigm. **(8+6+6)**

UNIT – III

6. a) Explain the classification of Reliable Multicast Systems.
   b) How can you test a network service ? Explain.
   c) What are stateful servers ? Explain two states of information. **(8+6+6)**

7. a) Briefly explain Client-Server paradigm issues.
   b) Write a note on FIFO reliable multicasting.
   c) Write a note on an archetypal multicast API. **(8+6+6)**

UNIT – IV

8. a) With an example explain a sample RMI application in Java.
   b) Write a note on RMI Security Manager.
   c) Explain the architecture of RMI with client callback. **(8+6+6)**

9. a) Explain Server-Side and Client-Side Implementation in Java RMI.
   b) Write the difference between RMI and socket API.
   c) Explain the server side augmentation for client callback. **(8+6+6)**