GANPAT UNIVERSITY
M. Tech SEMESTER-I [CE] EXAMINATION
NOV-DEC – 2013

3CE104 : DISTRIBUTED COMPUTING

Time: 3 Hours]   [Total Marks: 70

Instructions:
1. Figures to the right indicate full marks
2. Each section should be written in a separate answer book
3. Be precise and to the point in your answer

SECTION-I

Q.1
(A) What do you mean by transparency? list out all transparency and discuss any *four* transparency with suitable example   (06)

(B) What is distributed system? What are the advantages and disadvantages of distributed system compare to centralized system?   (05)

Q.2
(A) Explain peer-to-peer and web proxy model of client server architecture   (04)

(B) Differentiate Grid vs Cloud vs Cluster   (04)

(C) Explain role of .xdr file in RPC and discuss portmapper   (04)

OR

Q.2
(A) Write RPC IDL file (.x) to find out roots of quadratic equation? (*Hint:* $ax^2 + bx + c = 0$)   (02)

(B) Explain various call semantics of RPC for server implementation   (05)

(C) Discuss various client server interaction models in brief   (05)

Q.3 Attempt Any TWO   (12)
(A) Write steps to implement RMI service for basic calculation functions

(B) Explain Asynchronous, Synchronous and lightweight RPC in brief

(C) Discuss the role of virtualization and explain architecture of virtual machine

SECTION-II

Q.4

(A) Explain various goal of distributed file system?   (05)

(B) Differentiate GFS vs. NFS   (03)

(C) Explain clock drift and happen before relation   (03)

Q.5 Attempt Any THREE   (12)

(A) Discuss Berkley Algorithm for clock synchronization

(B) Discuss the role of each components of GFS

(C) How token ring approach is used to select coordinate process, explain with example

(D) Write a difference between mobile agent and RPC

Q.6 Attempt Any TWO   (12)

(A) Discuss HDFS architecture in brief.

(B) What is web service? Explain WSDL structure of web service

(C) Discuss design and implantation of CODA file system in details

----- END OF PAPER -----

2