morning

Student Exam No._____

GANPAT UNIVERSITY

B. Tech. Semester: VI Computer Engineering/ Information Technology

Date: 20/05/2016 **Regular Examination April – June 2016**

2CE605/2IT605: Distributed Systems

Time: 3 Hours **Total Marks: 70**

Instruction:

1. Attempt all questions.
2. Figures to the right indicate full marks
3. Each section should be written in a separate answer book

SECTION – I

Que. – 1 (A) Define: Distributed system and explain various scaling techniques in detail. [6]

(B) Discuss client-server addressing and application layering model with suitable example. [6]

OR

Que. – 1 (A) Discuss advantages and disadvantages of distributed system compare to centralized system with suitable example. [6]

(B) Explain various client-server interaction models in brief. [6]

Que. – 2 (A) Write and discuss the steps to implement RMI service for banking in brief. [6]

(B) Explain various call semantics of RPC for server implementation. [5]

OR

Que. – 2 (A) How Java RMI differ from SUN RPC? Also discuss architecture of Remote Method Invocation. [6]

(B) Explain how RPC works in detail? [5]

Que. – 3 (A) Define: Process migration and also discuss various reasons for process migration. [4]

(B) Discuss the major difference between process and thread. [4]

(C) Explain characteristics of distributed systems. [4]

[P. T.O]

SECTION - II

Que. – 4 (A) Define: Mobile agent and discuss various types of agents and its characteristics. [6]

(B) Explain token-ring approach for selection of coordinate process with suitable example. [6]

OR

Que. – 4 (A) Discuss the java properties that make it a good language for mobile agent programming. [6]

(B) Explain Lamport logical clock algorithm with suitable example. [6]

Que. – 5 (A) Explain Network File System architecture and its implementation. [6]

(B) Explain the role of each component of Google File System in detail. [5]

OR

Que. – 5 (A) Discuss Hadoop map reduce concept with suitable example. [6]

(B) Explain the role of Shadow Master in GFS and Write difference between NFS and GFS. [5]

Que. – 6 (A) What do you mean by Web service Composition? Discuss various approaches for web service composition. [4]

(B) Explain hoard walking and emulation in CODA file system. [4]

(C) Discuss distributed algorithm to achieve mutual exclusion in brief. [4]

END OF PAPER