Exam No._____

GANPAT UNIVERSITY

M. TECH SEM - I Computer Engineering/Information Technology

REGULAR EXAMINATION NOV – DEC 2017

3CE110/3IT110: Distributed Computing

Time: 3 Hours **Total Marks: 60**

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)** Explain multiprocessor based operating system and write differences between network, distributed, and multiprocessor operating system. **[5]**

(B) Explain application layering and addressing for client server interaction model in brief. **[5]**

OR

Que. – 1 **(A)** What do you mean by transparency? List out all transparency and discuss any four transparency with suitable example. **[5]**

(B) Explain peer-to-peer and web proxy model of client server architecture. **[5]**

Que. – 2 **(A)** Explain various call semantics of RPC for server implementation. **[5]**

(B) Discuss advantages of multithreaded environment with suitable example. **[5]**

OR

Que. – 2 **(A)** Explain architecture of Remote Method Invocation and also write generalized steps for implementation of RMI service. **[5]**

(B) Explain asynchronous, synchronous and door RPC in brief. **[5]**

Que. – 3 **(A)** Explain the role of stub and port-mapper in RPC with suitable example. **[4]**

(B) What do you mean by degree of Transparency and discuss it with an example. **[2]**

(C) Discuss various reason of process migration in brief. **[4]**

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SECTION-II

Que. – 4 **(A)** Explain lamport logical clock algorithm with suitable example. **[5]**

(B) Discuss advantages of mobile agent and also write differences between RPC and mobile agent. **[5]**

OR

Que. – 4 **(A)** Explain berkeley clock synchronization algorithm. **[5]**

(B) Explain basic elements of IBM aglet life cycle and its operations in details. **[5]**

Que. – 5 **(A)** What is web service? Explain WSDL structure of web service. **[5]**

(B) What do you mean by disconnection operation? Explain differences between first class and second class replica in CODA file system. **[5]**

OR

Que. – 5 **(A)** Explain various states of venus in CODA file system. **[5]**

(B) Explain characteristics of Hadoop file system and also discuss map-reduce architecture with suitable example. **[5]**

Que. – 6 **(A)** Discuss Bully algorithm for selection of coordinate process with suitable example. **[4]**

(B) Explain the concept of shadow master in Google File System in brief. **[3]**

(C) Explain Network File System (NFS) architecture in detail. **[3]**

END OF PAPER