GANPAT UNIVERSITY

M. TECH SEM - I COMPUTER ENGINEERING/INFORMATION TECHNOLOGY
REGULAR EXAMINATION NOV – DEC 2016
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) Define: Distributed Computing. Differentiate network, distributed and multiprocessor operating system. [5]

(B) Explain mobile code and web proxy model in sense of client server architecture. [5]

OR

Que. – 1 (A) What do you mean by degree of Transparency and also discuss various scaling techniques of distributed system. [5]

(B) Discuss various client server interaction models in brief. [5]

Que. – 2 (A) Explain synchronous, asynchronous and door RPC in detail. [5]

(B) Explain architecture of Remote Method Invocation also discuss How Java RMI differ from SUN RPC? [5]

OR

Que. – 2 (A) Discuss the role of XDR and port mapper in SUN RPC with suitable example. [5]

(B) Explain steps for implementation of banking services using RMI in detail. [5]

Que. – 3 (A) Explain the role of virtualization and architecture of virtual machine distributed systems. [4]

(B) What do you mean by process migration? Discuss importance of process migration. [4]

(C) Write difference between grid, cloud and cluster. [2]

[P. T.O]

SECTION - II

Que. – 4   (A)   Explain Cristian and Berkeley algorithm for clock synchronization with   [5]
suitable example.

            (B)   Define: mobile agent and discuss various types of agent and its   [5]
characteristics.

OR

Que. – 4   (A)   Explain IBM Aglet life cycle and its operation in brief.   [5]

            (B)   Discuss bully algorithm for selection of coordinate process in brief.   [5]

Que. – 5   (A)   Explain various component of Google File System Architecture in detail.   [5]

            (B)   Discuss How GFS is responsive for write operation and also discuss the   [5]
replication process in GFS

OR

Que. – 5   (A)   Define the role of Name node, data node in Hadoop file system and map   [5]
reduce concept with suitable example.

            (B)   Explain Network File System architecture and its implementation.   [5]

Que. – 6   (A)   What do you mean by Disconnection operation? Explain design view   [4]
principal of CODA file system.

            (B)   What is web service? Explain WSDL structure of web service   [4]

            (C)   Discuss first class and second class replica control in CODA.   [2]

END OF PAPER