BHARATIYA VIDYA BHAVAN'S
SARDAR PATEL INSTITUTE OF TECHNOLOGY
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Synoptic

End Semester Examination

Max. Marks: 60 Duration: 3 hr
Class: TYMCA Semester: V
Course Code: MCA51 Date: 13/11/18
Subject: Distributed Computing and Cloud Computing Time: 10.00 to 1.00 pm

1] A. How would you demonstrate the implementation of Client server communication using remote procedure call ? [6mks]

Diagram [2mks]
Explanation of each point [4mks]

- Client
- Client Stub
- RPC Runtime
- Server Stub
- Server

B] How would you use Remote procedure call to establish Client server binding?[6mks]
Diagram [2mks]
Explanation of each point [4mks]

- Client
- Server
- Binding agent
- Register, Deregister ,file Handler

2] A.What approach would you use to implement use of shared resources in distributed systems?
[6mks]

Any distributed algorithm for Mutual exclusion: Lamport ,Maekawa, Ricarta Agarwala,Raymond tree based, Token :Suzuki Kasami,singhals Heuristic with diagrammatic explanation [6mks]

B.]. What examples can you find to present different DSM consistency models? [6mks]

Any 6 points for elaboration and example [6mks]

- Sequential
- Strict
- causal
- Processor
- PRAM
- Weak
- Release

3A] How would you categorize different Address space mechanism for Process migration?[6mks]

- Total Freezing explanation with Diagram [2mk]
- Pretransfer explanation with Diagram [2mk]
- On demand explanation with Diagram [2mk]

What are some of the issues in designing load balancing algorithm? [6mks]

Any 3 points with explanation with policies
Location , Process transfer ,load estimation, priority assignment,migration,stateinformation

3B] What are the key decisions to be made in File caching schemes for Cache Location for distributed systems? [6mks]

Key decisions to be made in file-caching scheme for Cache Location for distributed systems

Cache Location with explanation and appropriate diagram
This refers to the place where the cached data is stored. Assuming that the original location of a file is on its server's disk, there are three possible cache locations in a distributed file system:

1. Servers main memory [2mk]
2. Clients disk [2mk]
3. Clients main memory[2mk]

4A] How would you differentiate between Cloud and grid computing ? [6 mks]

Any 8 parameters relevant to Cloud Computing and Grid Computing, each point carries 1 mark

A]Elaborate on cloud computing characteristics[6 mks]

List [1mk] and Explanation in detail for each point [5mk]
1.On demand Self service
2. Broad network access
3. Resource Pooling
4. Rapid Elasticity
5. Measured service

4 B] Can you distinguish between Deployment model ? [6 mks]

List [1mk] and Explanation in detail for each point [5mk]
Private Cloud ,Public ,Hybrid ,Community Cloud

B]Can you distinguish between Delivery model ? [6 mks]
List [1mk] and Explanation in detail for each point [5mk]
PaaS, IaaS, SaaS.

5A] How would you compare workstation server and Processor pool Model?[6mks]

Workstation server diagram and explanation [3mks]
Processor Pool diagram and explanation [3mks]

B] What can you say about the issues in Distributed system? [6mks]

Any 6 points with explanation

- Heterogeneity. ...
- Openness. ...
- Security. ...
- Scalability. ...
- Failure handling. ...
- Concurrency. ...
- Transparency. ...
- Quality of service.