Roll No. | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 08

M.Tech.(CSE Engg.) / (E-Security) (Sem.–2)

DISTRIBUTED SYSTEMS

Subject Code : CS-504

M.Code : 35405

Time : 3 Hrs. Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

Q1) a) What is Distributed Computing? Describe the architectural model along with description of its major components.

b) Describe client-server communication and group communication. Also, mention their advantages and disadvantages.

Q2) a) Define Remote Invocation. Briefly discuss about communication between distributed objects using RPC.

b) Take an example Java RM1 code and explain the concept of events and notification.

Q3) a) Discuss in detail the operating system architecture and measurements of protection in different layers.

b) Describe the distributed file service architecture and explain the tradeoff between Sun network file system and Andrew file system.

Q4) a) Outline the concept of global name service. Also, discuss the related directory and discovery services.

b) Mention the step-by-step working of time-stamped concurrency control method for distributed transactions.

Q5) a) Compare and contrast the methods of concurrency control in distributed transactions.

b) Briefly discuss the characteristics and features of Tiger video file server.

Q6) Elaborate the following in the context of Distributed Multimedia systems :

a) Resource management

b) Stream adaptation

Q7) a) Explain in detail the design and implementation issues of distributed shared memory. Also, discuss about Munin.

b) Define the interface to the election service in CORBA IDL. Also, discuss about sequential consistency.

Q8) Write short notes on following :

a) Optimistic concurrency control.

b) Distributed deadlocks.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.