D 50498

Name.....

Reg. No.....

SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, NOVEMBER 2013

CS 09 L07—DISTRIBUTED SYSTEMS

Time : Three Hours Maximum : 70 Marks

Part A

I. (a) Differentiate distributed and centrailzed computing services.

(b) State the need for synchronization.

(c) Define concurrent programming.

(d) Define a transaction.

(e) State the features of dynamic load sharing.

(5 × 2 = 10 marks)

Part B

II. (a) Explain the principle of operation involved in distributed computing.

(b) How are threads and processes involved in concurrent programming ?

(c) Write about inter-process communication.

(d) Write in brief about the directory services involved in interprocess communication.

(e) Explain the working of the leader election mechanism.

(f) How is security imposed on distributed computer model ?

(4 × 5 = 20 marks)

Part C

III. (a) With a neat sketch, explain the distributed system architecture.

Or

(b) Describe the design issues involved in distributed operating system.

IV. (a) Explain the nature of the time service mechanism involved in synchronization.

Or

(b) How is the concurrent processes programming done ? Explain with an example.

V. (a) Explain the algorithms used to implement the distributed mutual exclusion property.

Or

(b) Explain in detail about the request/reply communication process.

VI. (a) Explain the static process scheduling in detail with an example.

Or

(b) How does a distributed process work ? Explain with an example.

(4 × 10 = 40 marks)