

2011

M.Sc.

1st Semester Examination

DISTRIBUTED OPERATING SYSTEM

PAPER—COS-103

Full Marks : 50

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

All notations have their usual meaning.

Answer any four questions.

1. (a) What do you mean by distributed O/S? What are the advantages of distributed O/S over centralized system?
 - (b) What are the differences between bus-based multicomputers and switched multicomputers?
 - (c) What do you mean by migration transparency?
(2+3)+3+2
2. (a) Describe Berkeley algorithm for clock synchronization.

(Turn Over)

- (b) What is process migration ? Write down the steps of process migration. 6+(2+2)
3. (a) What is Remote procedure call ? Write down the basic mechanism associated with an RPC. 4
- (b) How binding is performed in RPC ? 4
4. (a) How will you measure system performance of a distributed system ? What are the factors on which it depends ? 1+2
- (b) Differentiate between Load balancing and load sharing. 3
- (c) Compare the performance between an M/M/2 processor pool model with a migration workstation model. 4
5. (a) How a remote file system is mounted in NFS ? 3
- (b) What do you mean by client caching ? Describe client caching using NFS version 4 call back mechanism. 2+3
- (c) What is coda ? 2
6. Write a short notes on any two : 2×5
- (i) Client server model.
- (ii) Middle Ware.
- (iii) Shared Virtual Memory.

[Internal Assessment — 10]