

(3 Hours)

[Total Marks: 80]

N.B.: 1) Question No.1 is compulsory.

2) Attempt any three from the remaining five questions.

- Q.1** (a) What are the load-sharing policies used for distributed systems? **5**
- (b) What are election algorithms? Explain bully algorithm. **5**
- (c) What are the issues in data security in cloud computing? **5**
- (d) What is a grid computing mechanism **5**
- Q.2** (a) Discuss the issues in designing and implementing DSM systems. **10**
- (b) What is process management? Explain the address transfer mechanism in detail. **10**
- Q.3** (a) What is physical and logical clock synchronization; explain the drifting of a clock. **10**
- (b) What is group communication? Explain in detail Message ordering techniques (Absolute, consistent and casual ordering) **10**
- Q.4** (a) Explain cloud computing and discuss cloud security issues. **10**
- (b) How file management is performed in a distributed environment? Explain with an example. **10**
- Q.5** (a) What is multi-datagram messaging? Explain the failure handling technique in IPC **10**
- (b) Explain cloud computing architecture in detail. **10**
- Q.6** **Write a short note on:** **20**
- a. Pipeline Thread Model
- b. Strict Consistency Model
- c. Drifting of the clock
- d. Callback RPC
