

## UNIT - I

2. (a) What is distributed system ? What are the objectives and goals of these systems ? How are these systems helpful ? Illustrate. 10

(b) List out Issues in designing a distributed operating system and explain transparency in detail. 10

3. (a) What is the difference between remote procedure call and local procedure call ? Explain lightweight RPC in detail. 10

(b) What are layered protocols in distributed systems ? Outline the purpose of these protocols. 10

## UNIT - II

4. (a) What are the different issues in deadlock detection and resolutions ? How Ho Ramamoorthy algorithm is used in deadlock detection and resolution ? 12

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(b) Discuss Bully's algorithm for choosing a coordinator process. 8

5. (a) Discuss any *two* algorithms for ensuring the mutual exclusion in distributed systems. 10

(b) Discuss the importance of Synchronization in DOS. Which algorithms are useful for synchronize of clock in DOS ? 10

## UNIT - III

6. In the processor allocation algorithms, we pointed out that one choice is between centralized and distributed and another is between optimal and suboptimal. Devise two optimal location algorithms, one centralized and one decentralized. 20

7. (a) List and explain important goals of distributed file system. Explain file access models in distributed file system. 10

(b) Discuss various trends in distributed file system.

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24471- (P-4)(Q-9)(19) (3)

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7. (a) Explain the circuit used for measurement of three phase power by using two wattmeter method. Derive expressions for it. 10
- (b) A balanced star connected load of  $(8+j6)$  ohm per phase is connected to a 3-phase, 230 V, 50 Hz supply. Find the line current, power factor, active power and reactive power. 10

## Section-D

8. (a) Describe constructional details of D.C. generator in detail. 10
- (b) Explain the principle of operation of 3- $\phi$  synchronous motor. Why is starting torque not produced in this motor? 10
9. (a) Describe construction and working principle of dynamometer type wattmeter and mention its advantages and disadvantages. 10
- (b) Explain the construction of single phase induction type energy meter. Show that the revolutions made by disc are proportional to the energy supplied. 10

B.Tech. 2nd Semester F-Scheme  
(Common for All Branches) Examination,

May-2019

## ELECTRICAL TECHNOLOGY

Paper-EE-101-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Question No. 1 is compulsory. Attempt any one question from each section.

1. (a) What is the significance of back e.m.f. in working of DC motors? 4
- (b) Distinguish between unilateral and bilateral network. 4
- (c) State and explain maximum power transfer theorem. 4
- (d) Describe advantages of polyphase system. 4
- (e) Define eddy current and hysteresis losses of transformer. 4

## Section-A

2. (a) State and explain Superposition theorem with some suitable example. 10