

Spring Mid-Semester Examination-2019
School of Computer Engineering
Kalinga Institute of Industrial Technology (KIIT)
Deemed to be University, Bhubaneswar-24
Sub: Distributed Operating System (CS -3024)
6th Sem, CSSE

Time: 1 hr 30 min

Full Mark: 20

(Answer Any Four Questions including Q1)

Q1. Answer all questions

[1×5]

- a. What is DOS? Explain.
- b. Differentiate between DOS and NOS.
- c. Explain happened before relationship.
- d. What are the metrics used for measuring the performance of mutual exclusion algorithm.
- e. Write the advantage of Ricart-Agrawala algorithm.

Q2.

[2.5+2.5]

- a. Explain any 5 transparencies in distributed systems.
- b. What is the necessity of Lamport's logical clock in a distributed system. Show the implementation of Lamport's logical clock using suitable example.

Q3

[2.5+2.5]

- a. Explain different computing system models.
- b. Differentiate between Lamport's logical clock and Vector clock giving example.

Q4.

[2.5+2.5]

- a. Give the details about 5 design issues that are available in designing the DOS.
- b. What is non-token based algorithm? Explain Ricart-Agrawala algorithm.

Q5. What is token-based algorithm? Explain Raymond's tree based algorithm with an example. Write down its performance. [5]

Q6. Write short notes on any two .

[2.5+2.5]

- a. DCE
- b. Lamport's Algorithm
- c. Suzuki-Kasami Algorithm