2024

Advanced Operating Systems and Networks

Full Marks : 100

Time : Three hours

*Answer **any five** questions.*

1.	Explain with a diagram TCP Three Way Handshake. Compare TCP and UDP protocols.	20
2.	What is deadlock? What are the necessary conditions for deadlock? Explain with an example Banker's Algorithm for deadlock prevention.	20
3.	Explain Dining Philosopher Problem. Provide a deadlock and starvation free solution to the Dining Philosopher Problem.	20
4.	What is a logical clock? What is the drawback of Lamport Clock? Explain with an example the functioning of Vector Clock.	20
5.	What is SDN? Explain with a diagram the architecture of SDN. What are the key advantages of SDN over traditional network?	20
6.	Describe Byzantine Generals Problem. Provide an application of the Byzantine Generals Problem in a real distributed system scenario.	20

7. Write short notes on (Any two)   10x2=20

   a)   IPSec

   b)   Congestion Control

   c)   Process State Diagram

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