Q1. Explain Page Replacement Algorithms with suitable example?.

Q2. What are the four necessary conditions to occur a deadlock? Explain banker’s algorithm.

Q3. What is the cause of thrashing? How it occurs and explains different method to prevent from thrashing?

Q4. Explain the different operations performed on files.

Q5. What is Access Matrix? & explain the implementation of matrix?

Q6. Differentiate record, file and directory?

Q7. Explain different types of scheduling queues and types of schedulers.

Q8. Explain Disk scheduling algorithm in terms of CPU scheduling.

Q9. What is binary semaphore and why it is used?

Q10.Consider a logical address space of eight pages of 1024 words each, mapped onto a physical memory of 32 frames. How many bits are there in the logical address and physical address?

Q11. Consider the following page reference string:

7,0,1,2,0,3,0,4,2,3,0,3,2,1,2,0,7,0,1.

How many page faults would occur for the following replacement algorithms assuming three frames? Remember that all frames are initially empty.

(a)LRU replacement

(b) FIFO replacement

(c) Optimal replacement

Q12. Explain different types of scheduling queues and types of schedulers.

Q13. Explain Dining Philosopher problem in process synchronization..

Q14. What is binary semaphore and why it is used?