Evalis-GT University

OS

Subject: OS
Exam Type: End Semester
Duration: 180 minutes
Total Marks: 38

Instructions: Answer all questions. Write clearly and show your work where appropriate.

Q1. Define process and thread. [0 marks]

Q2. What is a system call? [2 marks]

Q3. Differentiate between paging and segmentation. [2 marks]

Q4. What is the purpose of a semaphore? [2 marks]

Q5. Explain thrashing in operating systems. [2 marks]

Q6. Define context switching. [2 marks]

Q7. What is virtual memory? [2 marks]

Q8. Mention two advantages of multiprogramming. [2 marks]

Q9. What is a deadlock? [2 marks]

Q10. Explain FIFO page replacement algorithm in brief. [2 marks]

Q11. Explain the differences between preemptive and non-preemptive scheduling with examples. [5 marks]

Q12. Describe the Banker's Algorithm for deadlock avoidance.
or
Explain file allocation methods (contiguous, linked, indexed) with diagrams. [5 marks]

Q13. Describe in detail the different states of a process and illustrate the process state transition diagram. [10 marks]