Operating Systems Question Bank for PT-1 Feb 2022

a. Draw a neat diagram to demonstrate different states of a process.

b. Explain the concept of context switching with reference to process execution.

c. Define short term scheduler.

d. Define long term scheduler.

e. Apply FCFS algorithm to find the waiting time, completion time, response time and Turn Around Time for the processes.

f. What is an operating system? What are its main parts?

g. Explain the working with diagrams (Figures 1.1, 1.2, 1.4, 1.6, 1.8, 1.9, 1.11 and 1.13 from Galvin's book)

h. Write notes on / Map Logical Address to Physical Address for:
   i. Contiguous allocation
      1. Static
      2. Dynamic partitioning
   ii. Virtual Memory management
      1. Paging
      2. Segmentation

i. Apply FCFS and LRU page replacement algorithms in demand paging for a given sequence of pages.

j. What is compaction?

k. Differentiate between:
   i. Static and Dynamic Partitioning
   ii. Paging and Segmentation
   iii. First Fit, Best fit and Worst Fit