Lab Exercises for Process Scheduling

1. Consider a clinic with a set of patients for getting the treatment from an Eye specialist. Patients along with the arrival time and expected consultation time are mentioned in the following table.

Patient_id	Arrival Time	Expected Consultation Time (in minutes)
P1	6.09 pm	12
P2	6.10 pm	10
P3	6.04 pm	5
P4	6.00 pm	5
P5	6.05 pm	7

a. Illustrate the various ways of serving the patients for the consultation considering the following two strategies:
   (i) Arrival time to the clinic
   (ii) Expected shortest consultation time
   Give a pictorial representation of the sequence of patients being consulted by the Doctor for both the strategies.

Which of the above mentioned strategies results in the minimum average waiting time?

2. A restaurant has only one table for serving its customers. Four families have requested for a table on 09/03/2021 evening. The restaurant has a policy of spot booking only. Below mentioned table shows the arrival time of each family along with expected dining time.

Family	Arrival time	Expected Dining time (in minutes)
F1	7.03pm	15
F2	7.15pm	20
F3	7.10pm	10

F4	7.06pm	15

a. Illustrate the various ways of serving the family considering the following two strategies:
   i. Arrival time of the family
   ii. Expected shortest dining time

   Give a pictorial representation of the sequence of families being served by the restaurant for both the strategies.

   Which of the above mentioned strategies results in the minimum average waiting time?