**LAB – 6**

Sam, John and Alex have a different rate of consumption of drinks in a coffee shop. Their consumption is as below.



|  |  |  |
| --- | --- | --- |
| 0.8 | 1 | 0.3 |
| Sam | John | Alex |

The sales of Tea and Coffee in the shop are shown below.



|  |  |
| --- | --- |
| 0.5 | 0.9 |
| Tea | Coffee |

Create a relationship that describes the drinking habits of **the individuals to the drinks** sold in the coffee shop.



The following table presents the findings of a doctor about the health impact of drinks on human body. Determine the **expected health condition of Sam, John and Alex.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Good Health | Avg Health | Bad Health |
| Tea | 0.9 | 0.5 | 0.1 |
| Coffee | 0.2 | 0.3 | 1 |

In a water treatment process, we use a biological process to remove biodegradable organic matter. The organic matter is measured as the BOD, where the **optimal BOD** of effluent should **be less than 20mg/l.** Let B represent a fuzzy set “good effluent” on the universe of optical BOD values (20, 40, 60) as defined by the membership function



The retention time is critical to a bioreactor. Let T represent a fuzzy set called optimal retention time on the universe of days (6, 8, 10) as given by the membership function

