**Consider a drive in restaurant where carhops order and bring food to the cars. Cars arrive according to the inter-arrival distribution of cars. Basically there are 2 carhops Able and Baker. The distribution of their Service times is as follows:**

**Table 1: Probability distribution of Inter-arrival time of cars**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IAT | 1 | 2 | 3 | 4 | 5 |
| Probability | 0.05 | 0.25 | 0.30 | 0.25 | 0.15 |

**Table 2: Probability distribution of Service time of Able**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Able ST | 2 | 3 | 4 | 5 |
| Probability | 0.2 | 0.35 | 0.30 | 0.15 |

**Table 3: Probability distribution of Service time of Baker**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Able ST | 3 | 4 | 5 | 6 |
| Probability | 0.38 | 0.25 | 0.18 | 0.19 |

**Develop the simulation table and analyse the system by simulating the arrival and service of 20 customers. Assume that the first customer is arriving to system at 0th time Random digits for inter-arrival time and service time are given below:**

|  |  |  |
| --- | --- | --- |
| **Customer No.** | **R.D. for IAT** | **R.D. for ST** |
| 1 | - | 25 |
| 2 | 95 | 38 |
| 3 | 26 | 61 |
| 4 | 43 | 52 |
| 5 | 71 | 01 |
| 6 | 12 | 47 |
| 7 | 51 | 72 |
| 8 | 80 | 89 |
| 9 | 68 | 39 |
| 10 | 34 | 64 |
| 11 | 62 | 90 |
| 12 | 07 | 02 |
| 13 | 81 | 82 |
| 14 | 97 | 44 |
| 15 | 76 | 19 |
| 16 | 33 | 75 |
| 17 | 49 | 51 |
| 18 | 21 | 97 |
| 19 | 05 | 31 |
| 20 | 22 | 73 |