

## **Operating System**

### **Unit II**

#### **Numerical Practice Questions based on FCFS Scheduling Algorithm**

Q1. Consider the set of 3 processes whose arrival time and burst time are given below-

Process Id	Arrival time	Burst time
P1	0	2
P2	3	1
P3	5	6

If the CPU scheduling policy is FCFS, calculate the average waiting time and average turnaround time.

*Check Your answer:*

- *Average Turn Around time = 3 unit*
- *Average waiting time = 0 unit*

Q2. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	2	2
P2	0	1
P3	2	3
P4	3	5
P5	4	5

*Check Your answer:*

- *Average Turn-around time = 6*
- *Average Waiting time = 2.8*

Q3. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P0	0	10
P1	1	6
P2	3	2
P3	5	4

*Check Your answer:*

- *Average Turn-around time = 14.25*
- *Average Waiting time = 8.75*

Q4. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	2	2
P2	5	6
P3	0	4
P4	0	7
P5	7	4

*Check Your answer:*

- *Average Turn-around time = 11.2*
- *Average Waiting time = 6.6*

Q5. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	2	6
P2	1	8
P3	0	3
P4	4	4

*Check Your answer:*

- *Average Turn-around time = 9.3*
- *Average Waiting time = 5.6*

Q6. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	0.0	8
P2	0.4	4
P3	1.0	1

*Check Your answer:*

- *Average Turn-around time = 10.53*
- *Average Waiting time = ??*

Q7. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	0	2
P2	1	3
P3	2	5
P4	3	4
P5	4	6

*Check Your answer:*

- *Average Turn-around time = 8.2*
- *Average Waiting time = 4.2*

Q8. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	0	24
P2	0	3
P3	0	3

*Check Your answer:*

- *Average Turn-around time = 27*
- *Average Waiting time = 17*

Q9. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	0	8
P2	1	4
P3	2	9
P4	3	5

*Check Your answer:*

- *Average Turn-around time = 15.25*
- *Average Waiting time = 8.75*

Q10. Consider the given table below and find Completion time (CT), Turn-around time (TAT), Waiting time (WT), Average Turn-around time and Average Waiting time.

Process ID	Arrival time	Burst time
P1	0	6
P2	1	2
P3	2	5
P4	3	6
P5	7	1

*Check Your answer:*

- *Average Turn-around time = 10.6*
- *Average Waiting time = 6.6*