**Nama : Fahrizal Akbar R**

**NIM : 201910370311333**

**Kelas : Sistem Operasi G**

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|  |  |  |  |
| --- | --- | --- | --- |
| **Proses** | **Brust Time** | **Priority** | **Wkt Kedatangan** |
| P1 | 10 | 3 | 0 |
| P2 | 2 | 1 | 3 |
| P3 | 5 | 2 | 4 |

Gambar Gant Chart dan Tentukan Avg. Waiting Time serta Avg. Turn Arround Time dari ketiga proses di atas dengan algoritma :

1. FCFS
2. Round-Robin, q = 2
3. Round-Robin, q = 5

**Jawab :**

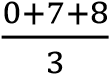
1. **FCFS** T T T

|  |  |  |
| --- | --- | --- |
| P1 | P2 | P3 |

0 10 12 17

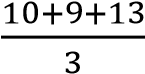
Waiting Time :

P1 = 0 | P2 = 10 -3 = 7 | P3 = 12 – 4 = 8

Avg. Waiting Time :  = 5

Turn Around Time :

P1 = 10 | P2 = 12 -3 = 9 | P3 = 17 – 4 = 13

Avg. Turn Around Time :  = 10,667

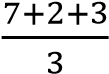
1. **Round-Robin, q = 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| P1 | P2 | P3 | |  | P1 | P3 | |  | P1 | P3 | P1 | P1 |
| 2 4 | | | | 6 8 10 | | | | |  | 12 13 15 | | |
| Waiting Time :  P1 = 0+2+2+2+1 =7 | | | | | P2 = 2 - 3 = -1 | | | | |  | | P3 = 2 + (2 – 4) + 2 + 2 = 4 | | |
| Avg. Waiting Time : | | | | = 3,3 | | | | |  |  | | |
| Turn Around Time :  P1 = 17 | | | | | P2 = 4 - 3 = 1 | | | | | | | P3 = 13 – 4 = 9 | | |
| Avg. Turn Around Time :    **Round-Robin, q = 5** | | | | = 9 | | | | |  |  | | |
| P1 | | |  | P2 | | |  | | P3 |  | P1 | |

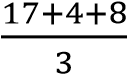
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**c.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0 5  Waiting Time :  P1 = 0+2+5 = 7 | | | 7  P2 = 5 - 3 = 2 |  | 12  | P3 = 5 + (2 – 4) = 3 | 17 |

Avg. Waiting Time :  = 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Turn Around Time : |  |  |  |  |  |
| P1 = 17 | | | P2 = 7 - 3 = 4 |  | | | P3 = 12 – 4 = 8 |

Avg. Turn Around Time :  = 9,667