Lampiran 1. **Hasil Iterasi**

Iterasi 1 & 2

| Iterasi | 1 | Iterasi | 2 |
|---|---|---|---|
| Urutan | Makespan | Urutan | Makespan |
| J2-J1-J3-J4-J5-J6-J7-J8-J9-J10 | 219.63 | J3-J1-J2-J4-J5-J6-J7-J8-J9-J10 | 219.63 |
| J3-J2-J1-J4-J5-J6-J7-J8-J9-J10 | 219.63 | J4-J1-J3-J2-J5-J6-J7-J8-J9-J10 | 219.63 |
| J4-J2-J3-J1-J5-J6-J7-J8-J9-J10 | 219.63 | J5-J1-J3-J4-J2-J6-J7-J8-J9-J10 | 219.63 |
| J5-J2-J3-J4-J1-J6-J7-J8-J9-J10 | 219.63 | J6-J1-J3-J4-J5-J2-J7-J8-J9-J10 | 230.15 |
| J6-J2-J3-J4-J5-J1-J7-J8-J9-J10 | 244.26 | J7-J1-J3-J4-J5-J6-J2-J8-J9-J10 | 166.24 |
| J7-J2-J3-J4-J5-J6-J1-J8-J9-J10 | 166.24 | J8-J1-J3-J4-J5-J6-J7-J2-J9-J10 | 219.63 |
| J8-J2-J3-J4-J5-J6-J7-J1-J9-J10 | 219.63 | J9-J1-J3-J4-J5-J6-J7-J8-J2-J10 | 219.63 |
| J9-J2-J3-J4-J5-J6-J7-J8-J1-J10 | 219.63 | J10-J1-J3-J4-J5-J6-J7-J8-J9-J2 | 219.63 |
| J10-J2-J3-J4-J5-J6-J7-J8-J9-J1 | 219.63 | J2-J3-J1-J4-J5-J6-J7-J8-J9-J10 | 219.63 |
| J1-J3-J2-J4-J5-J6-J7-J8-J9-J10 | 219.63 | J2-J4-J3-J1-J5-J6-J7-J8-J9-J10 | 219.63 |
| J1-J4-J3-J2-J5-J6-J7-J8-J9-J10 | 219.63 | J2-J5-J3-J4-J1-J6-J7-J8-J9-J10 | 219.63 |
| J1-J5-J3-J4-J2-J6-J7-J8-J9-J10 | 219.63 | J2-J6-J3-J4-J5-J1-J7-J8-J9-J10 | 219.63 |
| J1-J6-J3-J4-J5-J2-J7-J8-J9-J10 | 230.15 | J2-J7-J3-J4-J5-J6-J1-J8-J9-J10 | 166.24 |
| J1-J7-J3-J4-J5-J6-J2-J8-J9-J10 | 188.89 | J2-J8-J3-J4-J5-J6-J7-J1-J9-J10 | 219.63 |
| J1-J8-J3-J4-J5-J6-J7-J2-J9-J10 | 219.63 | J2-J9-J3-J4-J5-J6-J7-J8-J1-J10 | 219.63 |
| J1-J9-J3-J4-J5-J6-J7-J8-J2-J10 | 219.63 | J2-J10-J3-J4-J5-J6-J1-J8-J9-J1 | 219.63 |
| J1-J10-J3-J4-J5-J6-J7-J8-J9-J2 | 219.63 | J2-J1-J4-J3-J5-J6-J7-J8-J9-J10 | 219.63 |
| J1-J2-J4-J3-J5-J6-J7-J8-J9-J10 | 219.63 | J2-J1-J5-J4-J3-J6-J7-J8-J9-J10 | 219.63 |
| J1-J2-J5-J4-J3-J6-J7-J8-J9-J10 | 219.63 | J2-J1-J6-J4-J5-J3-J7-J8-J9-J10 | 230.15 |
| J1-J2-J6-J4-J5-J3-J7-J8-J9-J10 | 230.15 | J2-J1-J7-J4-J5-J6-J3-J8-J9-J10 | 160.70 |
| J1-J2-J7-J4-J5-J6-J3-J8-J9-J10 | 166.24 | J2-J1-J8-J4-J5-J6-J7-J3-J9-J10 | 219.63 |
| J1-J2-J8-J4-J5-J6-J7-J3-J9-J10 | 219.63 | J2-J1-J9-J4-J5-J6-J7-J8-J3-J10 | 219.63 |
| J1-J2-J9-J4-J5-J6-J7-J8-J3-J10 | 219.63 | J2-J1-J10-J4-J5-J6-J7-J8-J9-J3 | 219.63 |
| J1-J2-J10-J4-J5-J6-J7-J8-J9-J3 | 219.63 | J2-J1-J3-J5-J4-J6-J7-J8-J9-J10 | 219.63 |
| J1-J2-J3-J5-J4-J6-J7-J8-J9-J10 | 219.63 | J2-J1-J3-J6-J5-J4-J7-J8-J9-J10 | 207.36 |
| J1-J2-J3-J6-J5-J4-J7-J8-J9-J10 | 207.36 | J2-J1-J3-J7-J5-J6--J8-J9-J10 | 144.24 |
| J1-J2-J3-J7-J5-J6-J4-J8-J9-J10 | 144.24 | J2-J1-J3-J8-J5-J6-J7-J4-J9-J10 | 153.61 |
| J1-J2-J3-J8-J5-J6-J7-J4-J9-J10 | 153.61 | J2-J1-J3-J9-J5-J6-J7-J8-J4-J10 | 153.61 |

| Iterasi | 1 | Iterasi | 2 |
|---|---|---|---|
| Urutan | Makespan | Urutan | Makespan |
| J1-J2-J3-J9-J5-J6-J7-J8-J4-J10 | 153.61 | J2-J1-J3-J10-J5-J6-J7-J8-J9-J4 | 153.61 |
| J1-J2-J3-J10-J5-J6-J7-J8-J9-J4 | 153.61 | J2-J1-J3-J4-J6-J5-J7-J8-J9-J10 | 242.41 |
| J1-J2-J3-J4-J6-J5-J7-J8-J9-J10 | 242.41 | J2-J1-J3-J4-J7-J6-J5-J8-J9-J10 | 194.60 |
| J1-J2-J3-J4-J7-J6-J5-J8-J9-J10 | 194.60 | J2-J1-J3-J4-J8-J6-J7-J5-J9-J10 | 220.81 |
| J1-J2-J3-J4-J8-J6-J7-J5-J9-J10 | 220.81 | J2-J1-J3-J4-J9-J6-J7-J8-J5-J10 | 224.00 |
| J1-J2-J3-J4-J9-J6-J7-J8-J5-J10 | 224.00 | J2-J1-J3-J4-J10-J6-J7-J8-J9-J5 | 224.00 |
| J1-J2-J3-J4-J10-J6-J7-J8-J9-J5 | 224.00 | J2-J1-J3-J4-J5-J7-J6-J8-J9-J10 | 193.15 |
| J1-J2-J3-J4-J5-J7-J6-J8-J9-J10 | 193.15 | J2-J1-J3-J4-J5-J8-J7-J6-J9-J10 | 196.34 |
| J1-J2-J3-J4-J5-J8-J7-J6-J9-J10 | 196.34 | J2-J1-J3-J4-J5-J9-J7-J8-J6-J10 | 193.15 |
| J1-J2-J3-J4-J5-J9-J7-J8-J6-J10 | 193.15 | J2-J1-J3-J4-J5-J10-J7-J8-J9-J6 | 193.15 |
| J1-J2-J3-J4-J5-J10-J7-J8-J9-J6 | 193.15 | J2-J1-J3-J4-J5-J6-J8-J7-J9-J10 | 222.82 |
| J1-J2-J3-J4-J5-J6-J8-J7-J9-J10 | 222.82 | J2-J1-J3-J4-J5-J6-J8-J9-J7-J10 | 222.82 |
| J1-J2-J3-J4-J5-J6-J9-J8-J7-J10 | 222.82 | J2-J1-J3-J4-J5-J6-J10-J8-J9-J7 | 222.82 |
| J1-J2-J3-J4-J5-J6-J10-J8-J9-J7 | 222.82 | J2-J1-J3-J4-J5-J6-J7-J9-J8-J10 | 219.63 |
| J1-J2-J3-J4-J5-J6-J7-J9-J8-J10 | 219.63 | J2-J1-J3-J4-J5-J6-J7-J10-J9-J8 | 219.63 |
| J1-J2-J3-J4-J5-J6-J7-J10-J9-J8 | 219.63 | J2-J1-J3-J4-J5-J6-J7-J8-J10-J9 | 219.63 |
| J1-J2-J3-J4-J5-J6-J7-J8-J10-J9 | 219.63 | | |

Iterasi 3 & 4

| Iterasi | 3 | Iterasi | 4 |
|---|---|---|---|
| Urutan | Makespan | Urutan | Makespan |
| J3-J2-J1-J4-J5-J6-J7-J8-J10-J9 | 219.63 | J4-J2-J1-J3-J5-J6-J7-J8-J9-J10 | 219.63 |
| J4-J3-J1-J2-J5-J6-J7-J8-J9-J10 | 219.63 | J3-J4-J1-J2-J5-J6-J7-J8-J9-J10 | 219.63 |
| J5-J3-J1-J4-J2-J6-J7-J8-J9-J10 | 219.63 | J5-J4-J1-J3-J2-J6-J7-J8-J9-J10 | 219.63 |
| J6-J3-J1-J4-J5-J2-J7-J8-J9-J10 | 230.15 | J6-J4-J1-J3-J5-J2-J7-J8-J9-J10 | 230.15 |
| J7-J3-J1-J4-J5-J6-J2-J8-J9-J10 | 188.89 | J7-J4-J1-J3-J5-J6-J2-J8-J9-J10 | 188.89 |
| J8-J3-J1-J4-J5-J6-J7-J2-J9-J10 | 219.63 | J8-J4-J1-J3-J5-J6-J7-J2-J9-J10 | 219.63 |
| J9-J3-J1-J4-J5-J6-J7-J8-J2-J10 | 219.63 | J9-J4-J1-J3-J5-J6-J7-J8-J2-J10 | 219.63 |
| J10-J3-J1-J4-J5-J6-J7-J8-J9-J2 | 219.63 | J10-J4-J1-J3-J5-J6-J7-J8-J9-J2 | 219.63 |
| J2-J4-J1-J3-J5-J6-J7-J8-J9-J10 | 219.63 | J2-J1-J4-J3-J5-J6-J7-J8-J9-J10 | 219.63 |
| J2-J5-J1-J4-J3-J6-J7-J8-J9-J10 | 219.63 | J2-J5-J1-J3-J4-J6-J7-J8-J9-J10 | 219.63 |

| Iterasi | 3 | Iterasi | 4 |
|---|---|---|---|
| Urutan | Makespan | Urutan | Makespan |
| J2-J6-J1-J4-J5-J3-J7-J8-J9-J10 | 230.15 | J2-J6-J1-J3-J5-J4-J7-J8-J9-J10 | 207.36 |
| J2-J7-J1-J4-J5-J6-J3-J8-J9-J10 | 185.74 | J2-J7-J1-J3-J5-J6-J4-J8-J9-J10 | 144.24 |
| J2-J8-J1-J4-J5-J6-J7-J3-J9-J10 | 219.63 | J2-J8-J1-J3-J5-J6-J7-J4-J9-J10 | 153.61 |
| J2-J9-J1-J4-J5-J6-J7-J8-J3-J10 | 219.63 | J2-J9-J1-J3-J5-J6-J7-J8-J4-J10 | 153.61 |
| J2-J10-J1-J4-J5-J6-J7-J8-J9-J3 | 219.63 | J2-J10-J1-J3-J5-J6-J7-J8-J9-J4 | 153.61 |
| J2-J3-J4-J1-J5-J6-J7-J8-J9-J10 | 219.63 | J2-J4-J5-J3-J1-J6-J7-J8-J9-J10 | 219.63 |
| J2-J3-J5-J4-J1-J6-J7-J8-J9-J10 | 219.63 | J2-J4-6J-J3-J5-J1-J7-J8-J9-J10 | 216.21 |
| J2-J3-J6-J4-J5-J1-J7-J8-J9-J10 | 230.15 | J2-J4-J7-J3-J5-J6-J1-J8-J9-J10 | 180.47 |
| J2-J3-J7-J4-J5-J6-J1-J8-J9-J10 | 166.24 | J2-J4-J8-J3-J5-J6-J7-J1-J9-J10 | 208.59 |
| J2-J3-J8-J4-J5-J6-J7-J1-J9-J10 | 219.63 | J2-J4-J9-J3-J5-J6-J7-J8-J1-J10 | 219.63 |
| J2-J3-J9-J4-J5-J6-J7-J8-J1-J10 | 219.63 | J2-J4-J10-J3-J5-J6-J7-J8-J9-J1 | 219.63 |
| J2-J3-J10-J4-J5-J6-J7-J8-J9-J1 | 219.63 | J2-J4-J1-J6-J5-J3-J7-J8-J9-J10 | 242.41 |
| J2-J3-J1-J5-J4-J6-J7-J8-J9-J10 | 219.63 | J2-J4-J1-J7-J5-J6-J3-J8-J9-J10 | 180.47 |
| J2-J3-J1-J6-J5-J4-J7-J8-J9-J10 | 207.36 | J2-J4-J1-J8-J5-J6-J7-J3-J9-J10 | 219.63 |
| J2-J3-J1-J7-J5-J6-J4-J8-J9-J10 | 144.24 | J2-J4-J1-J9-J5-J6-J7-J8-J3-J10 | 219.63 |
| J2-J3-J1-J8-J5-J6-J7-J4-J9-J10 | 153.61 | J2-J4-J1-J10-J5-J6-J7-J8-J9-J3 | 219.63 |
| J2-J3-J1-J9-J5-J6-J7-J8-J4-J10 | 153.61 | J2-J4-J1-J3-J6-J5-J7-J8-J9-J10 | 242.41 |
| J2-J3-J1-J10-J5-J6-J7-J8-J9-J4 | 153.61 | J2-J4-J1-J3-J7-J6-J5-J8-J9-J10 | 194.60 |
| J2-J3-J1-J4-J6-J5-J7-J8-J9-J10 | 242.41 | J2-J4-J1-J3-J8-J6-J7-J5-J9-J10 | 220.81 |
| J2-J3-J1-J4-J7-J6-J5-J8-J9-J10 | 194.60 | J2-J4-J1-J3-J9-J6-J7-J8-J5-J10 | 224.00 |
| J2-J3-J1-J4-J8-J6-J7-J5-J9-J10 | 220.81 | J2-J4-J1-J3-J10-J6-J7-J8-J9-J5 | 224.00 |
| J2-J3-J1-J4-J9-J6-J7-J8-J5-J10 | 224.00 | J2-J4-J1-J3-J5-J7-J6-J8-J9-J10 | 193.15 |
| J2-J3-J1-J4-J10-J6-J7-J8-J9-J5 | 224.00 | J2-J4-J1-J3-J5-J8-J7-J6-J9-J10 | 196.34 |
| J2-J3-J1-J4-J5-J7-J6-J8-J9-J10 | 193.15 | J2-J4-J1-J3-J5-J9-J7-J8-J6-J10 | 193.15 |
| J2-J3-J1-J4-J5-J8-J7-J6-J9-J10 | 196.34 | J2-J4-J1-J3-J5-J10-J7-J8J-9J-6 | 193.15 |
| J2-J3-J1-J4-J5-J9-J7-J8-J6-J10 | 193.15 | J2-J4-J1-J3-J5-J6-J8-J7-J9-J10 | 222.82 |
| J2-J3-J1-J4-J5-J10-J7-J8-J9-J6 | 193.15 | J2-J4-J1-J3-J5-J6-J9-J8-J7-J10 | 222.82 |
| J2-J3-J1-J4-J5-J6-J8-J7-J9-J10 | 222.82 | J2-J4-J1-J3-J5-J6-J10-J8-J9-J7 | 222.82 |
| J2-J3-J1-J4-J5-J6-J9-J8-J7-J10 | 222.82 | J2-J4-J1-J3-J5-J6-J7-J9-J8-J10 | 219.63 |
| J2-J3-J1-J4-J5-J6-J10-J8-J9-J7 | 222.82 | J2-J4-J1-J3-J5-J6-J7-J10-J9-J8 | 219.63 |

| Iterasi | 3 | Iterasi | 4 |
|---|---|---|---|
| Urutan | Makespan | Urutan | Makespan |
| J2-J3-J1-J4-J5-J6-J7-J9-J8-J10 | 219.63 | J2-J4-J1-J3-J5-J6-J7-J8-J10-J9 | 219.63 |
| J2-J3-J1-J4-J5-J6-J7-J10-J9-J8 | 219.63 | | |
| J2-J3-J1-J4-J5-J6-J7-J8-J10-J9 | 219.63 | | |

Iterasi 4 dan 6

| Iterasi | 5 | Iterasi | 6 |
|---|---|---|---|
| Urutan | Makespan | Urutan | Makespan |
| J4-J1-J2-J3-J5-J6-J7-J8-J9-J10 | 219.63 | J5-J2-J4-J3-J1-J6-J7-J8-J9-J10 | 219.63 |
| J3-J1-J4-J2-J5-J6-J7-J8-J9-J10 | 219.63 | J4-J5-J2-J3-J1-J6-J7-J8-J9-J10 | 219.63 |
| J5-J1-J4-J3-J2-J6-J7-J8-J9-J10 | 219.63 | J3-J5-J4-J2-J1-J6-J7-J8-J9-J10 | 219.63 |
| J6-J1-J4-J3-J5-J2-J7-J8-J9-J10 | 230.15 | J6-J5-J4-J3-J1-J2-J7-J8-J9-J10 | 196.88 |
| J7-J1-J4-J3-J5-J6-J2-J8-J9-J10 | 188.89 | J7-J5-J4-J3-J1-J6-J2-J8-J9-J10 | 166.24 |
| J8-J1-J4-J3-J5-J6-J7-J2-J9-J10 | 219.63 | J8-J5-J4-J3-J1-J6-J7-J2-J9-J10 | 219.63 |
| J9-J1-J4-J3-J5-J6-J7-J8-J2-J10 | 219.63 | J9-J5-J4-J3-J1-J6-J7-J8-J2-J10 | 219.63 |
| J10-J1-J4-J3-J5-J6-J7-J8-J9-J2 | 219.63 | J10-J5-J4-J3-J1-J6-J7-J8-J9-J2 | 219.63 |
| J2-J5-J4-J3-J1-J6-J7-J8-J9-J10 | 219.63 | J2-J4-J5-J3-J1-J6-J7-J8-J9-J10 | 219.63 |
| J2-J6-J4-J3-J5-J1-J7-J8-J9-J10 | 230.15 | J2-J3-J4-J5-J1-J6-J7-J8-J9-J10 | 219.63 |
| J2-J7-J4-J3-J5-J6-J1-J8-J9-J10 | 171.19 | J2-J6-J4-J3-J1-J5-J7-J8-J9-J10 | 230.15 |
| J2-J8-J4-J3-J5-J6-J7-J1-J9-J10 | 219.63 | J2-J7-J4-J3-J1-J6-J5-J8-J9-J10 | 194.60 |
| J2-J9-J4-J3-J5-J6-J7-J8-J1-J10 | 219.63 | J2-J8-J4-J3-J1-J6-J7-J5-J9-J10 | 220.81 |
| J2-J10-J4-J3-J5-J6-J7-J8-J9-J1 | 219.63 | J2-J9-J4-J3-J1-J6-J7-J8-J5-J10 | 224.00 |
| J2-J1-J5-J3-J4-J6-J7-J8-J9-J10 | 219.63 | J2-J10-J4-J3-J1-J6-J7-J8-J9-J5 | 224.00 |
| J2-J1-J6-J3-J5-J4-J7-J8-J9-J10 | 207.36 | J2-J5-J6-J3-J1-J4-J7-J8-J9-J10 | 207.36 |
| J2-J1-J7-J3-J5-J6-J4-J8-J9-J10 | 144.24 | J2-J5-J7-J3-J1-J6-J4-J8-J9-J10 | 144.24 |
| J2-J1-J8-J3-J5-J6-J7-J4-J9-J10 | 153.61 | J2-J5-J8-J3-J1-J6-J7-J4-J9-J10 | 153.61 |
| J2-J1-J9-J3-J5-J6-J7-J8-J4-J10 | 153.61 | J2-J5-J9-J3-J1-J6-J7-J8-J4-J10 | 153.61 |
| J2-J1-J10-J3-J5-J6-J7-J8-J9-J4 | 153.61 | J2-J5-J10-J3-J1-J6-J7-J8-J9-J4 | 153.61 |
| J2-J1-J4-J5-J3-J6-J7-J8-J9-J10 | 205.40 | J2-J5-J4-J6-J1-J3-J7-J8-J9-J10 | 219.63 |
| J2-J1-J4-J6-J5-J3-J7-J8-J9-J10 | 242.41 | J2-J5-J4-J7-J1-J6-J3-J8-J9-J10 | 170.36 |
| J2-J1-J4-J7-J5-J6-J3-J8-J9-J10 | 178.22 | J2-J5-J4-J8-J1-J6-J7-J3-J9-J10 | 219.63 |
| J2-J1-J4-J8-J5-J6-J7-J3-J9-J10 | 219.63 | J2-J5-J4-J9-J1-J6-J7-J8-J3-J10 | 219.63 |

| Iterasi | 5 | Iterasi | 6 |
|---|---|---|---|
| Urutan | Makespan | Urutan | Makespan |
| J2-J1-J4-J9-J5-J6-J7-J8-J3-J10 | 219.63 | J2-J5-J4-J10-J1-J6-J7-J8-J9-J3 | 219.63 |
| J2-J1-J4-J10-J5-J6-J7-J8-J9-J3 | 219.63 | J2-J5-J4-J3-J6-J1-J7-J8-J9-J10 | 219.63 |
| J2-J1-J4-J3-J6-J5-J7-J8-J9-J10 | 242.41 | J2-J5-J4-J3-J7-J6-J1-J8-J9-J10 | 170.36 |
| J2-J1-J4-J3-J7-J6-J5-J8-J9-J10 | 194.60 | J2-J5-J4-J3-J8-J6-J7-J1-J9-J10 | 219.63 |
| J2-J1-J4-J3-J8-J6-J7-J5-J9-J10 | 220.81 | J2-J5-J4-J3-J9-J6-J7-J8-J1-J10 | 219.63 |
| J2-J1-J4-J3-J9-J6-J7-J8-J5-J10 | 224.00 | J2-J5-J4-J3-J10-J6-J7-J8-J9-J1 | 219.63 |
| J2-J1-J4-J3-J10-J6-J7-J8-J9-J5 | 224.00 | J2-J5-J4-J3-J1-J7-J6-J8-J9-J10 | 170.36 |
| J2-J1-J4-J3-J5-J7-J6-J8-J9-J10 | 193.15 | J2-J5-J4-J3-J1-J8-J7-J6-J9-J10 | 173.56 |
| J2-J1-J4-J3-J5-J8-J7-J6-J9-J10 | 196.34 | J2-J5-J4-J3-J1-J9-J7-J8-J6-J10 | 170.36 |
| J2-J1-J4-J3-J5-J9-J7-J8-J6-J10 | 193.15 | J2-J5-J4-J3-J1-J10-J7-J8-J9-J6 | 219.63 |
| J2-J1-J4-J3-J5-J10-J7-J8-J9-J6 | 193.15 | J2-J5-J4-J3-J1-J6-J8-J7-J9-J10 | 222.82 |
| J2-J1-J4-J3-J5-J6-J8-J7-J9-J10 | 222.82 | J2-J5-J4-J3-J1-J6-J9-J8-J7-J10 | 222.82 |
| J2-J1-J4-J3-J5-J6-J9-J8-J7-J10 | 222.82 | J2-J5-J4-J3-J1-J6-J10-J8-J9-J7 | 222.82 |
| J2-J1-J4-J3-J5-J6-J10-J8-J9-J7 | 222.82 | J2-J5-J4-J3-J1-J6-J7-J9-J8-J10 | 219.63 |
| J2-J1-J4-J3-J5-J6-J7-J9-J8-J10 | 219.63 | J2-J5-J4-J3-J1-J6-J7-J10-J9-J8 | 219.63 |
| J2-J1-J4-J3-J5-J6-J7-J10-J9-J8 | 219.63 | J2-J5-J4-J3-J1-J6-J7-J8-J10-J9 | 219.63 |
| J2-J1-J4-J3-J5-J6-J7-J8-J10-J9 | 219.63 | | |