# **JEGYZŐKÖNYV**

Operációs rendszerek BSc

Készítette: Bettes Benjámin László

Neptunkód: IG1TYM

# 1, FIFO

| FIFO            |       |       |      |   |                  |   |   |   | Lap | hivat | kozá | sok |   |   |   |   |   |   |   |   |
|-----------------|-------|-------|------|---|------------------|---|---|---|-----|-------|------|-----|---|---|---|---|---|---|---|---|
| Memóriakeret    | 7     | 6     | 5    | 4 | 6                | 7 | 3 | 2 | 6   | 7     | 6    | 5   | 1 | 2 | 5 | 6 | 7 | 6 | 5 | 2 |
| 1. lap          | 7     | 7     | 7    | 4 | -,,-             | 4 | 4 | 2 | 2   | 2     |      | 5   | 5 | 5 |   | 6 | 6 |   | 6 | 2 |
| 2. lap          |       | 6     | 6    | 6 | -,,-             | 7 | 7 | 7 | 6   | 6     |      | 6   | 1 | 1 |   | 1 | 7 |   | 7 | 7 |
| 3. lap          |       |       | 5    | 5 | -,,-             | 5 | 3 | 3 | 3   | 7     |      | 7   | 7 | 2 |   | 2 | 2 |   | 5 | 5 |
| FIFO            | 7     | 6     | 5    | 4 | , and the second | 7 | 3 | 2 | 6   | 7     | Ť    | 5   | 1 | 2 | Ť | 6 | 7 |   | 5 | 2 |
| Laphiba: 16 (ah | ány p | oiros | van) |   |                  |   |   |   |     |       |      |     |   |   |   |   |   |   |   |   |

## LRU

| LRU          |   |   |   |   |   |   |   |   | Lap | hivat | kozá | sok |   |   |   |   |   |   |   |   |
|--------------|---|---|---|---|---|---|---|---|-----|-------|------|-----|---|---|---|---|---|---|---|---|
| Memóriakeret | 7 | 6 | 5 | 4 | 6 | 7 | 3 | 2 | 6   | 7     | 6    | 5   | 1 | 2 | 5 | 6 | 7 | 6 | 5 | 2 |
| 1. lap       | 7 | 7 | 7 | 4 |   | 4 | 3 | 3 | 3   | 7     |      | 7   | 1 | 1 |   | 6 | 6 |   |   | 6 |
| 2. lap       |   | 6 | 6 | 6 |   | 6 | 6 | 2 | 2   | 2     |      | 5   | 5 | 5 |   | 5 | 5 |   |   | 5 |
| 3. lap       |   |   | 5 | 5 |   | 7 | 7 | 7 | 6   | 6     |      | 6   | 6 | 2 |   | 2 | 7 |   |   | 2 |
| Laphiba: 15  |   |   |   |   |   |   |   |   |     |       |      |     |   |   |   |   |   |   |   |   |

# SC FIFO

| SC           |      |      |      |      |      |      |      |      |      | L    | aphiv | /atko | záso | k    |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Memóriakeret | 7    | 6    | 5    | 4    |      |      |      | 6    | 7    | 3    | 2     | 6     | 7    | 6    | 5    | 1    | 2    | 5    | 6    | 7    | 6    | 5    | 2    |
| 1. lap       | 7, 1 | 7, 1 | 7, 1 | 7, 0 | 7, 0 | 7, 0 | 4, 1 | 4, 1 | 4, 1 | 4, 0 | 2, 1  | 2, 1  | 2, 0 | 2, 0 | 5, 1 | 5, 1 | 5, 0 | 5, 1 | 5, 0 | 7, 1 | 7, 1 | 7, 1 | 7, 0 |
| 2. lap       |      | 6, 1 | 6, 1 | 6, 1 | 6, 0 | 6, 0 | 6, 0 | 6, 1 | 6, 0 | 3, 1 | 3, 1  | 3, 0  | 7, 1 | 7, 1 | 7, 1 | 7, 0 | 2, 1 | 2, 1 | 2, 0 | 2,0  | 2, 0 | 5, 1 | 5, 0 |
| 3. lap       |      |      | 5, 1 | 5, 1 | 5, 1 | 5, 0 | 5, 0 | 5, 0 | 7, 1 | 7, 1 | 7, 0  | 6, 1  | 6, 1 | 6, 1 | 6, 0 | 1, 1 | 1, 1 | 1, 1 | 6, 1 | 6, 1 | 6, 1 | 6, 1 | 2, 1 |
| FIFO         |      |      | 765  | 657  | 576  | 765  | 654  | 654  | 467  | 743  | 372   | 236   | 627  | 627  | 765  | 571  | 152  | 152  | 526  | 267  | 267  | 675  | 752  |
| Laphiba: 17  | ,    |      |      |      |      |      |      |      |      |      |       |       |      |      |      |      |      |      |      |      |      |      |      |

# Gyakorló feladatok:

## FIFO

| FIFO         |   |   |   |   |   |   |   |   | Lap | hivat | kozá | sok |   |   |   |   |   |   |   |   |
|--------------|---|---|---|---|---|---|---|---|-----|-------|------|-----|---|---|---|---|---|---|---|---|
| Memóriakeret | 5 | 4 | 3 | 2 | 4 | 5 | 1 | 7 | 4   | 5     | 4    | 3   | 6 | 7 | 3 | 4 | 5 | 4 | 3 | 7 |
| 1. lap       | 5 | 5 | 5 | 2 |   | 2 | 2 | 7 | 7   | 7     |      | 3   | 3 | 3 |   | 4 | 4 |   | 4 | 7 |
| 2. lap       |   | 4 | 4 | 4 |   | 5 | 5 | 5 | 4   | 4     |      | 4   | 6 | 6 |   | 6 | 5 |   | 5 | 5 |
| 3. lap       |   |   | 3 | 3 |   | 3 | 1 | 1 | 1   | 5     |      | 5   | 5 | 7 |   | 7 | 7 |   | 3 | 3 |
| FIFO         | 5 | 4 | 3 | 2 | 5 | 1 | 7 | 4 | 5   | 3     | 6    | 7   | 4 | 5 | 3 | 7 |   |   |   |   |
| Laphiba: 16  |   |   |   |   |   |   |   |   |     |       |      |     |   |   |   |   |   |   |   |   |

# LRU

| LRU          |   |   |   |   |   |   |   |   | Lap | hivat | kozá | sok |   |   |   |   |   |   |   |   |
|--------------|---|---|---|---|---|---|---|---|-----|-------|------|-----|---|---|---|---|---|---|---|---|
| Memóriakeret | 5 | 4 | 3 | 2 | 4 | 5 | 1 | 7 | 4   | 5     | 4    | 3   | 6 | 7 | 3 | 4 | 5 | 4 | 3 | 7 |
| 1. lap       | 5 | 5 | 5 | 2 |   | 2 | 1 | 1 | 1   | 5     |      | 5   | 6 | 6 |   | 4 | 4 |   |   | 4 |
| 2. lap       |   | 4 | 4 | 4 |   | 4 | 4 | 7 | 7   | 7     |      | 3   | 3 | 3 |   | 3 | 3 |   |   | 3 |
| 3. lap       |   |   | 3 | 3 |   | 5 | 5 | 5 | 4   | 4     |      | 4   | 4 | 7 |   | 7 | 5 |   |   | 7 |
| Laphiba: 15  |   |   |   |   |   |   |   |   |     |       |      |     |   |   |   |   |   |   |   |   |

#### **SC FIFO**

| SC           |         |      |      |      |      |      |      |      | Lap  | hivat | kozá | sok  |      |      |      |      |      |      |      |      |
|--------------|---------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|
| Memóriakeret | 5       | 4    | 3    | 2    | 4    | 5    | 1    | 7    | 4    | 5     | 4    | 3    | 6    | 7    | 3    | 4    | 5    | 4    | 3    | 7    |
| 1. lap       | 5, 1    | 5, 1 | 5, 1 | 2, 1 | 2, 1 | 2, 1 | 2,0  | 7, 1 | 7, 1 | 7, 0  | 7, 0 | 3, 1 | 3, 1 | 3, 0 | 3, 1 | 3, 0 | 5, 1 | 5, 1 | 5, 1 | 5, 0 |
| 2. lap       |         | 4, 1 | 4, 1 | 4,0  | 4, 1 | 4,0  | 1, 1 | 1, 1 | 1, 0 | 5, 1  | 5, 1 | 5, 1 | 5, 0 | 7, 1 | 7, 1 | 7, 0 | 7,0  | 7, 0 | 3, 1 | 3, 0 |
| 3. lap       |         |      | 3, 1 | 3,0  | 3,0  | 5, 1 | 5, 1 | 5,0  | 4, 1 | 4, 1  | 4, 1 | 4, 0 | 6, 1 | 6, 1 | 6, 1 | 4, 1 | 4, 1 | 4, 1 | 4, 1 | 7, 1 |
| FIFO         |         |      | 543  | 432  | 432  | 245  | 521  | 157  | 714  | 475   | 475  | 543  | 356  | 637  | 637  | 374  | 745  | 745  | 453  | 457  |
| Laphiba: 16  | <u></u> |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |

## OPT

| OPT          |   |   |   |     |   |   |     |     | Lap | hivat | kozá | sok |     |   |   |     |     |   |   |     |
|--------------|---|---|---|-----|---|---|-----|-----|-----|-------|------|-----|-----|---|---|-----|-----|---|---|-----|
| Memóriakeret | 5 | 4 | 3 | 2   | 4 | 5 | 1   | 7   | 4   | 5     | 4    | 3   | 6   | 7 | 3 | 4   | 5   | 4 | 3 | 7   |
| 1. lap       | 5 | 5 | 5 | 5   |   |   | 5   | 5   |     |       |      | 3   | 3   |   |   | 3   | 3   |   |   | ??  |
| 2. lap       |   | 4 | 4 | 4   |   |   | 4   | 4   |     |       |      | 4   | 6   |   |   | 4   | 4   |   |   | ??  |
| 3. lap       |   |   | 3 | 2   |   |   | 1   | 7   |     |       |      | 7   | 7   |   |   | 7   | 5   |   |   | ??  |
| Laphiba: 10  |   |   |   | 543 |   |   | 542 | 541 |     |       |      | 547 | 347 |   |   | 367 | 347 |   |   | 345 |