(1)

acquired resources table:

Process	r_1	r_2	r_3	r_4	r_5
P_1	0	1	1	1	2
P_2	0	1	0	1	0
P_3	0	0	0	0	1
P_4	2	1	0	0	0

Maximum remaining resource needs table:

Process	r_1	r_2	r_3	r_4	r_5
P_1	1	1	0	2	1
P_2	0	1	0	2	1
P_3	0	2	0	3	1
P_4	0	2	1	1	0

$E = [2, 4, 4, 4, 4]$

$A = [0, 1, 0, 2, 1]$

Step 1: release P_2

$A \pm [0, 1, 0, 1, 0] = [0, 2, 0, 3, 1]$

Step 2: release P_3

$A \pm [0, 0, 0, 0, 1] = [0, 2, 0, 3, 2]$

There is a deadlock involving P_1 and P_4
- P_1 is blocked on r_3 (requesting r_1)
- P_4 is blocked on r_1 (requesting r_3)

- r_1 and r_3 are not available resources