Name		Signature	Student Id Nr	Points
_			the <u>exam paper is 2-sided</u>	
time, b	ut sometimes when using S or e of them at a time, but some was deployed, and then foun	T it also needs R for a short time. To times when using R or T they also n d to end up with a deadlock once pe	hreads B and C use most of eed S for a short time. er maybe 2-4 weeks.	
ii.	removed? Explain the modifi	cations needed for each thread. Exp	-	
[3 p] M i.	. •	•	Buddy algorithm?	
ii.	[1 p] Will use of Buddy algori	thm lead to internal fragmentation?	PIf it does, give an example	?
	peration ite your [4 p] System i.	perating Systems, miniexarite your answer on this exam paper in [4 p] System has three critical regions time, but sometimes when using S or only one of them at a time, but some System was deployed, and then foun i. [1 p] Give a scenario leading ii. [3 p] How should one modify removed? Explain the modifi deadlock given above is not pure the second s	perating Systems, miniexam 2, 12.2.2020 (12p) ite your answer on this exam paper in the space given. Please notice, that [4 p] System has three critical regions (R, S, and T). Thread A uses most of time, but sometimes when using S or T it also needs R for a short time. To only one of them at a time, but sometimes when using R or T they also in System was deployed, and then found to end up with a deadlock once poin. [1 p] Give a scenario leading to deadlock, and explain why it lead the removed? Explain the modifications needed for each thread. Explain the modifications needed for each thread in the modifications needed for e	perating Systems, miniexam 2, 12.2.2020 (12p) ite your answer on this exam paper in the space given. Please notice, that the exam paper is 2-sided. [4 p] System has three critical regions (R, S, and T). Thread A uses most of the time only one of them time, but sometimes when using S or T it also needs R for a short time. Threads B and C use most of only one of them at a time, but sometimes when using R or T they also need 5 for a short time. System was deployed, and then found to end up with a deadlock once per maybe 2-4 weeks. i. [1 p] Give a scenario leading to deadlock, and explain why it leads to deadlock. ii. [3 p] How should one modify the codes for A, B and C, so that all possibilities for deadlock removed? Explain the modifications needed for each thread. Explain why the scenario leading deadlock given above is not possible any more. [3 p] Memory management without virtual memory i. [1 p] Which problem caused by Best-fit algorithm is solved with Buddy algorithm?

[1 p] Will use of Buddy algorithm lead to external fragmentation? If it does, give an example?

iii.

c)	[3 p] Vi i.	irtual memory page replacement policy [1 p] How does Optimal page replacement policy? Why it cannot be implemented in practice?
	ii.	[2 p] What data is Clock page replacement policy based on? Where is that data located, who updates it and when? Is Clock global or local replacement policy?
d)	[2 p] T i.	rashing [1 p] Explain the concept "trashing", which is related to virtual memory systems.
	ii.	[1 p] How will PFF-algorithm try to prevent trashing dynamically during run time?
		[1 p] How will the dispersion of prevent drashing dynamically during run time.