Номеwork 5 – CS O449

Question 1: With an inverted page table, and physical memory that is 4 GiB in size, and pages that are 2KiB in size, how large is the page table in terms of page entries?

A:	2 Gi	B :	2 Ki	C:	1 Ki	D:	0.5 Ki
E:	2 Mi	F:	4 Ki	G:	0.5 Gi	H:	782 Ki
]
			Answer: ?				

Question 2: With a multi-level page table with two levels, 32-bit addresses, and a page size of 1 KiB, how many entries are in the individual page tables, if they are all the same size?

					A		
E:	2 ⁵	F:	27	G:	2 ⁹	H:	2 ¹¹
A :	2 ⁴	B:	2 ⁶	C:	2 ⁸	D:	2 ¹⁰

Question 3: To avoid a buffer overflow from being an effective security issue when a malicious actor uses one to inject code into a program, what is one possible strategy that could be used?

A:	mark	stack segment "read-only"	B: mark stack segment as "non-execute	, "
C:	mark	code segment "writable"	D: place data segment in high memory	

Answer:

?

Consider the following (normal) page table and translate the addresses that follow.

	Valid	Write	Execute	Physical Address		
0000	1	0	1	e2f3		
0001	0	0	0	0000		
	• • •	•••	• • •			
aff0	0	0	0	c233		
aff1	1	1	0	b3d8		
aff2	0	0	0	0000		
	• • •	•••	• • •			
fffc	0	0	0	563c		
fffd	1	0	1	563b		
fffe	1	0	0	aff1		
ffff	1	0	0	af3d		
Question 4: 0xaff1563b A: 0xc233563b B: 0xb3d8aff1 C: 0xb3d8563b D: page fault						
				Answer: ?		
Question 5: 0xfffc1240						
A: 0x563c1240		1240	B: 0xfffca	aff1 C: 0xfffc1240 D: page fault		

Answer: **?**

Submission:

Please modify this document and answer in the provided spaces and submit your completed document as a PDF to Gradescope. You may write in your answers and scan them in. Or carefully modify this document in Word and export to PDF.