For each case below, suppose that a program reads the logical blocks of the file sequentially, one after the other, and that the time to position the head over the first block is $T_{\text{avg seek}} + T_{\text{avg rotation}}$.

- A. Best case: Estimate the optimal time (in ms) required to read the file over all possible mappings of logical blocks to disk sectors.
- B. Random case: Estimate the time (in ms) required to read the file if blocks are mapped randomly to disk sectors.

6.25

The following table gives the parameters for a number of different caches. For each cache, fill in the missing fields in the table. Recall that m is the number of physical address bits, C is the cache size (number of data bytes), B is the block size in bytes, E is the associativity, S is the number of cache sets, t is the number of tag bits, s is the number of set index bits, and b is the number of block offset bits.

Cache	m	C	В	E	San S	Horasphie	Si ti si ago	ad Milliandes
1.e top	32	1,024	4	4		Parente va		
2.	32	1,024	4	256	d trom ri	Semishe small	FK Prop	Wemor
3. 110000	32	1,024	8	t the trate	of the h	igher levels.	but at the	Erst es
4.	32	1,024	8	128	telor e c	reizah oz had	20 010 00	
5.	32	1,024	32	18 110	HYSHAM	THURST HAR	a of Abelia	arcorana
6.	32	1,024	32	4 13 8	H Beornie	अपने मार्च भारत	HATARAM	APA AM
				Halling the residence	antone di	CARTRONNIC S IN ON	4-1-1-1-1	T- NOTE A

6.26

The following table gives the parameters for a number of different caches. Your task is to fill in the missing fields in the table. Recall that m is the number of physical address bits, C is the cache size (number of data bytes), B is the block size in bytes, E is the associativity, S is the number of cache sets, t is the number of tag bits, s is the number of set index bits, and b is the number of block offset bits.

Cache	m	C /	В	iba E mbosa	S	or de the	manufac	b
1.	32	-	8	W14 600 8	ye pages	21	8	3
2.	32	2,048	y special to	form and a	128	23	7	2
3.	32	1,024	2	8 008	64	tuiled inf	ormation	1
4.	32	1,024	a 97) itu W inder as	2	16	23	4.	Water to

o 15 for the fact of the fact This problem concerns the cache in Practice Problem 6.12.

- A. List all of the hex memory addresses that will hit in set 1.
- B. List all of the hex memory addresses that will hit in set 6.

6.28

This problem concerns the cache in Practice Problem 6.12.

A. List all of the hex memory addresses that will hit in set 2.