

**CSE 313**

**July 2021**

**CT 4**

**Date: 9 February 2022**

**Time: 25 mins + 10 mins for upload**

1. Mention one advantage and one disadvantage of using inverted page table. Describe a way to circumvent the disadvantage you mentioned. **(2+2=4 marks)**
2. In a hypothetical machine, there are a total of 8 physical page frames.

Page Name	Time of Last Use (t)	R
A	22	1
B	54	1
C	74	0
D	37	0
E	12	1
F	91	0
G	45	1
H	24	1

At  $t=124$  and  $t=147$ , two page faults occur. Using clock page replacement algorithm, identify the page frames that will be evicted. **(6 marks)**

3. Describe the reason for using segmentation in memory. **(2 marks)**
4. Outline the steps that happen when a TLB miss occurs. **(4 marks)**
5. Mention the advantages and disadvantages of maintaining separate lists for holes and processes in swapping. **(4 marks)**