

HIBA ZUBAIR

SECTION F

18K-1361

DUE DATE: 15th Dec 2020

18K-1361**ACTIVITY 1**

$$\text{Page size} = 16 \text{ KB} = 2^{14} \text{ B}$$

$$\text{page table entry size} = 4 \text{ B}$$

$$\text{virtual address space} = 48 \text{ bits}$$

$$\text{No. of pages} = 2^{48} / 2^{14} = 2^{34} \text{ B}$$

$$\text{Inner page size} = 2^{34} \times 4 = 2^{36} \text{ B} = 2^6 \text{ GB} = 64 \text{ GB}$$

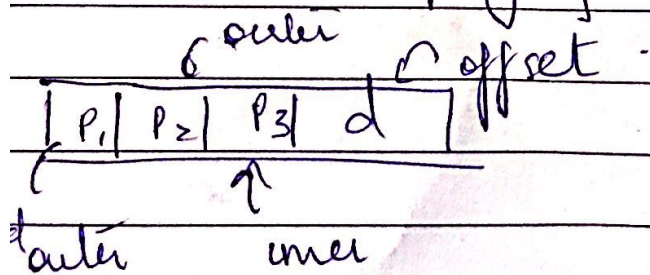
$$\text{Outer no. of pages} = 2^{36} / 2^{14} = 2^{22} \text{ B}$$

$$\text{Outer page size} = 2^{22} \times 4 = 2^{24} \text{ B} = 16 \text{ MB}$$

$$\text{No. of pages for 2nd outer page Table} = 2^{24} / 2^{14} = 2^{10} = 1 \text{ KB}$$

$$2^{\text{nd}} \text{ outer page size} = 2^{10} \text{ B} \times 4 \text{ B} = 2^{12} \text{ B} = 1 \text{ KB}$$

Hence 3 level paging



34	14
22	12
10	12

