TOPICS TO BE COVERED

01 Question

02 Discussion

Consider the following virtual addresses: [MCQ]

784, 224, 634, 734, 546, 978, 444, 299, 712, 526

If the page size is 150 bytes, then the reference string will be.

A. 7, 2, 6, 7, 5, 9, 4, 2, 7, 5

B. 7, 2, 6, 5, 9, 4, 6, 5

C. 6, 1, 3, 4, 5, 9, 7, 6

D. 5, 1, 4, 3, 6, 2, 1, 4, 3

$0 - 149 \rightarrow P_0$

$150 - 299 \rightarrow P_1$

$300 - 449 \rightarrow P_2$

$450 - 599 \rightarrow P_3$

$600 - 749 \rightarrow P_4$

$750 - 899 \rightarrow P_5$

$900 - 1049 \rightarrow P_6$

5, 1, 4, 3, 6, 2, 1, 4, 3

Q.2 Consider the following virtual addresses: [NAT] (P)(W)

709, 540, 612, 311, 456, 908, 806, 708, 580, 250, 412,

If the page size of 200B, then what be the sum of length of corresponding reference string and number of unique pages in the reference string.

$$0-199 \quad [P_0]$$
$$200-399 \quad [P_1]$$
$$400-599 \quad [P_2]$$
$$600-799 \quad [P_3]$$
$$800-999 \quad [P_4]$$

$$3, 2, 3, 1, 2, 4, 3, 2, 1, 2$$

$$[3, 2, 1, 4]$$

length of reference string = 10

number of unique reference string = 4

$$10 + 4 = \underline{14}$$

A. Compaction

B. Thrashing

C. Segmentation

D. Paging

Which of the following statements are correct? [MSQ]

A. High thrashing can lead to deadlock.

B. Lack of frames in main memory causes thrashing.

C. Increasing memory frames can reduce page faults.

D. High degree of multi programming can cause poor throughput.

Q.5

If the size of working set window (Δ) for a set of pages is 4. The following is the page reference string:

5, 4, 3, 1, 5, 4, 5, 3, 4, 5

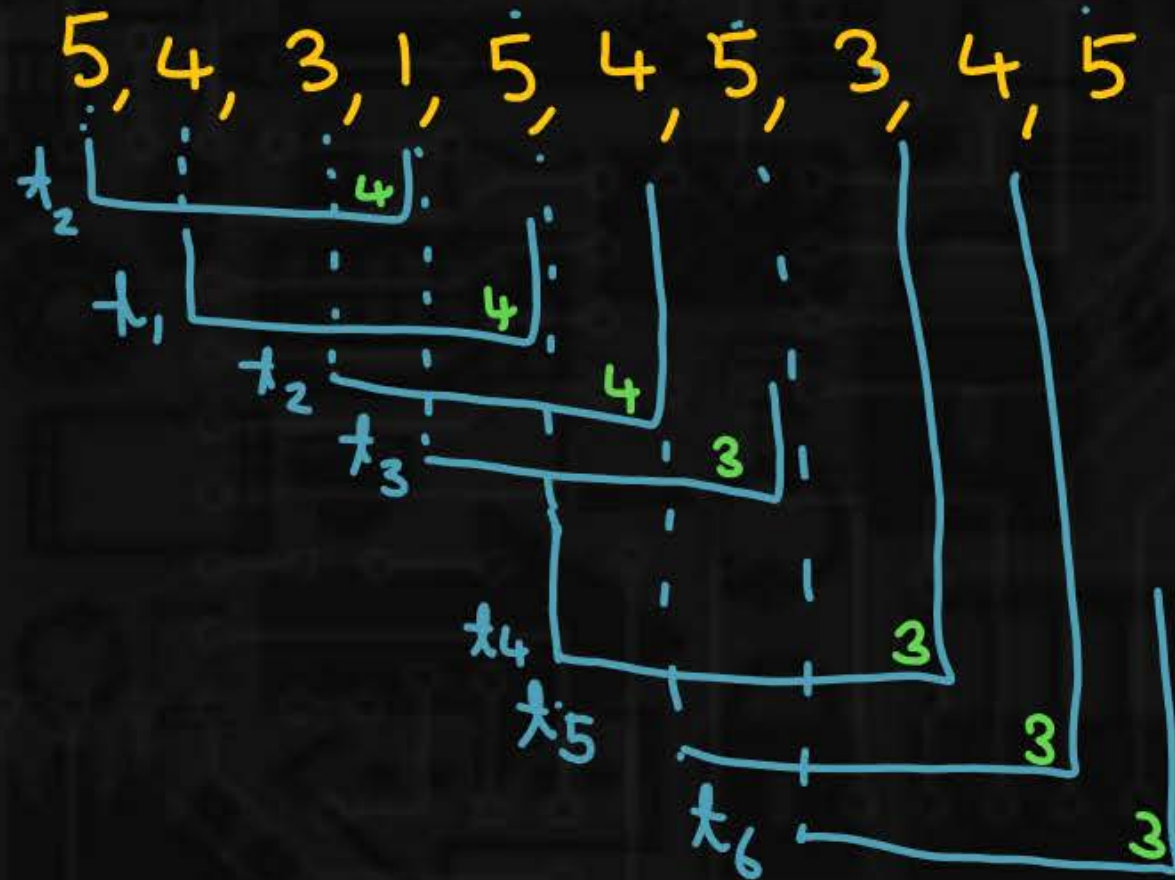What could be the minimum page demand of process at any [MSQ] time?

A. 4

B. 3

C. 2

D. 1

5, 4, 3, 1, 5, 4, 5, 3, 4, 5

mini (3, 4)

= 3

Q.6 Which of the following technique is/are used to handle thrashing and make system thrashing free?

[MSQ]

A. Decreasing page fault frequency

B. working set model

C. Compaction ✗

D. Page replacement policy ✗

Working set (t, k) at an instant of time t is

A. The set of k reference with high frequency

B. The set of k future reference that the OS will make in next t unit of terms.

C. The k set of page that have been reference in the last t time units.

D. None of these

THANK YOU GW SOLDIERS !