CBSE NET

Q. In a demand paging memory system, page table is held in registers. The time taken to service a page fault is 8 m.sec. if an empty frame is available or if the replaced page is not modified, and it takes 20 m.secs., if the replaced page is modified. What is the average access time to service a page fault assuming that the page to be replaced is modified 70% of the time ?

(A) 11.6 m.sec.

(B) 16.4 m.sec.

- (C) 28 m.sec.
- (D) 14 m.sec

Ans: (B)

Explanation: Let number of page faults be 100. In which 30 page faults are without modification so time is $30 \times 8 = 240$ m.sec. And rest 70 page faults are with modification so time is $20 \times 70 = 1400$ m.sec.

Average access time of servicing a page fault is (240+1400)/100=28 m.sec.

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- 95. Compare Paging and Segmentation?
- 96. What is Process Scheduling, CPU Scheduling, Disk Scheduling? Explain Short, Medium and Long term Scheduler?
- 97. Explain concept of a process with its components ?
- 98. Explain the following in brief Contiguous and Linked list allocation for implementing file system?
- 99. Explain various Disk scheduling algorithms with Illustrations ?
- 100. Define process and thread. What is PCB ? Explain its various entries with their usefulness ?
- 101. Discuss advantages and disadvantages of the Buffer cache ?
- 102. Explain different types of OS with examples of each ?
- 103. What is an Operating System? Write down its desirable characteristics ?
- 104. Define a deadlock ? Write down the conditions responsible for deadlock? How can we recover from deadlock ?
- 105. What are the various services provided by Operating system ?
- 106. What do you mean by PCB? Where is it used? What are its contents? Explain.
- 107. What is Binary and Counting semaphores ?
- 108. What is File? What are the different File attribute and operations?
- 109. What are System call? Explain briefly about various types of system call provided by an Operating System?
- 110. Describe necessary conditions for deadlocks situation to arise.

- 111. What are points to be consider in file system design? Explain linked list allocation in detail?
- 112. Write a Semaphore solution for dining Philosopher's problem?
- 113. Consider the following page reference string:1,2,3,4,5,3,4,1,2,7,8,7,8,9,7,8,9,5,4,5.How many page faults would occur for the following replacement algorithm, assuming four frames:a) FIFOb) LRU
- 114. Explain CPU schedulers in operating system?
- 115. Write the different state of a process with the help of Process state deagram?
- 116. What is Mutex in operating system?
- 117. Explain Network operating system?
- 118. What do you mean by paging in operating system ?