

Department of Computer Science & Information Technology
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B.Sc.5th Sem CTII Session2021-22
Subject: Operating System
Time:10.00am to 11.00am(60minutes)
Max Marks:30

PART:A

Note:Attempt all the question of this part

1. Which of the memory allocation strategy does not require searching full memory?
 - a. Best fit
 - b. First fit
 - c. Worst fit
 - d .All the above

2. Consider a physical memory of size 2MB and it is divided into a frame of size 4096 bytes.What is total number of bits required to address this memory?
 - a. 22
 - b. 20
 - c. 10
 - d. None

3. Which of these are correct during thrashing?
 - a. CPU spends more time in serving page fault than doing productive work
 - b. CPU spends more time is serving productive work
 - c. Both above
 - d. None

4. In which of the following page replacement policies Belady's anomaly may occur
 - A .Optimal
 - b. LRU
 - c. MRU
 - d.FIFO

5. Which one of the following is the address generated by CPU?
 - a) Physical address
 - b) absolute address
 - c) logical address
 - d) none of the mentioned

6. The time taken for the desired sector to rotate to the disk head is called _____

- a) positioning time
- b) random access time
- c) seek time
- ✓ d) rotational latency

PART:B

Attempt any three questions only each carry six marks

- 1. Explain TLB.
- 2. Explain Virtual Memory.
- ✓ 3. Consider the following disk requests with head initially positioned at 50 and moving towards increasing number of cylinder and total cylinders are 200. It takes 4ms to access per cylinder .

40,124,22,86,132,60,185,17

681

What is total head movement for FCFS .

- 4. Write two differences between
 - ✓ a. Internal and External fragmentation
 - b. Paging and segmentation
- 5. Explain LRU page replacement algorithm.