

Quiz#3a

Each question carries 2.5 Marks

Question: 1

In direct mapping, you have total number of 10 lines in cache. On what cache line number, the block number 25 in memory will map?

Solution

Cache line number = Block number % total number of lines in cache
 $36 \% 10 = 6^{\text{th}}$ line of cache.

Question: 2

What is the average time to read 40 bits, when average access time is 20microseconds, and transfer rate is 20 bits per microsecond.

Solution

Access time + Number of bits/Transfer rate
= 20 microsecond + 40/20 microseconds
= 20 + 2
= 22 microseconds