Question on Logical Address & Physical Address | Operating System – M05 P11

This is a multipart blog article series, and in this series I am going to explain you the concepts of operating system. This article series is divided into multiple modules and this is the fifth module which consists of 26 articles.

In this article we will see a question on logical address and physical address space, to understand the concept of paging in operating system.

**Question:** Consider a system which has LA = 7 bits, PA = 6 bits, page size = 8 words, then calculate number of pages and number of frames.

**Answer:** Total bits of LA = 7 bits, which means it is equal to 27

The page size = 8 words which means 23 so we can say it is of 3 bits

Therefore, Page No. = 4 which we can say is 24 and then total number of pages = 24 = 16

While total number of bits required to respond total number of page = 4 bits.

PA = 6 bits, total size of PA = 26 = 64

Now, we know that “frame offset = Page offset”

Number of frames = 23 = 8

“Total number of entries in page table = number of pages”

“Total number of entries = 16”

“Total size of page table = 24 x 8”

So, this was a simple question on logical address and physical address space. Hope you liked it and learned something new from it.

If you have a doubt, question, quires related to this article or just want to share something with me, than please feel free to contact me.