A Window 10 operation system with 32-bit address RAM, what is the maximum capacity of memory?

**Solution:**

**2³² bytes=4GB**

**The maximum capacity of memory is 4GB.**

If the paging mechanism with two-level directory is used. The page size is 8Kbytes, the first-level directory contain the 4096 items, how many items does the second-level directory contains?

**Solution:**

**(2³²/(8\*2¹⁰))/4096=128**

**The second-level directory contains 128 items.**

How to assign the address lines to page, first-level directory and second-level directory?

**Solution:**

**Page needs 13 address lines.**

**First-level directory needs 12 address lines.**

**Second-level directory needs 7 address lines.**