

CTT10009 – COMPUTER SYSTEM

Homework 6

HW6: Cache memory asseccing

I. Information:

Code:	HW6
Deadline nộp bài:	
Form of submission:	Individual
Tool to submit:	Moodle
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II. Outcome

After this exercise you will reach to:

- G2.1: Describe the structure and operating principles of personal computer components, emphasizing internal memory.

III. Describe

Suppose a direct-mapped cache has 16 byte blocks and a total of 128 blocks (N=128). The machine has 64 bit addresses (5pt)

- How many address bits are used for the byte offset?
- How many address bits are used for the index?
- How many address bits are used for the tag?

Now suppose the cache is 4-way set associative. Answer again: (5pt)

- How many address bits are used for the byte offset?
- How many address bits are used for the index?
- How many address bits are used for the tag?

IV. Submission requirement:

Please submit the report file to moodle site with the name **Student_ID.pdf**