

ECE571: Advanced Microprocessor Design – Homework 9
Fall 2020

Due: Friday 13 November 2020, 12:00pm

Create a document that contains the answers to the questions below. A .pdf or .txt file is preferred but I can accept MS Office or Libreoffice format if necessary.

1. Read the website article:

AMD Zen 3 Ryzen Deep Dive Review: 5950X, 5900X, 5800X and 5600X Tested by Ian Cutress and Andrei Frumusanu (note that there are many pages to this article, don't feel obligated to read all of the benchmark parts).

<https://www.anandtech.com/show/16214/amd-zen-3-ryzen-deep-dive-review-5950x-5900x-5800x-and-5700x-tested>

I apologize for the obnoxious ads while reading. Pressing “print this article” and reading that might help make it a bit more readable.

2. Answer the following questions:

- (a) What is a chiplet?
- (b) What is the maximum IPC of the chip?
- (c) What type of branch predictor does it use?
- (d) What change was made to the L3 cache since zen2?
- (e) What is frequency ramping?

3. **Submitting your work.**

- Create the document containing the answers to the questions asked.
- Please make sure your name appears in the document.
- e-mail the file to me by the homework deadline.