

Computer Architecture (EE-3009)
Assignment#2
Submission Deadline: 17th April, 25

Submission Guidelines: Max mark: 60

Hand written Assignment on standard A4 sheet should be submitted.

- Write your name, roll number and section on top of the first page of the assignment.
- **Plagiarism will be treated strictly.**
- 50% reduction will be applied for late submissions

Q1 a) Explain data register and pointer register in detail. (5*3=15)

- b) What are the purpose of code segment register, data segment register, extra segment register, and stack segment register?
- c) Write the function of memory management unit.

Q2 a) Write the key characteristics of RISC architecture. (5*2=10)

- b) What are the performance benefits of RISC architecture?

Q3 Describe following types of operation in detail. (10)

- i. Data transfer
- ii. Logical

Q4 a) Write data types of x86 architecture in detail. (5*2=10)

- b) You also need to write processor actions on various types of operations.

Q5 a) Differentiate between RISC vs CISC processor. (5*3=15)

- b) Draw a neat diagram for Classic Five-Stage Pipeline for a RISC Processor mentioning IM, DM, ALU and Register.
- c) Explain the types of data hazards with examples.