EXAM 1 Information (EET 340)

Exam 1 Date: March 8th (Tuesday)
Exam 1 Syllabus: Lectures till 03-01-22

Recommended study:
1. Study labs and homework's thoroughly.
2. Study class notes and chapter PPT thoroughly.

Question Pattern

- It will be altogether 6 questions
- This exam is closed book. You can use a calculator. However, you can write the necessary information/equations/formulas in a single piece of paper and bring it to the exam.

Exam Procedure for Face-to-face Students: Face to face students appear exam 1 on the regular class time. You will have 50 minutes to complete this exam.

Exam Procedure for Online Students:

1. You need to download the file from the link provided, print and fill it out by answering the questions.

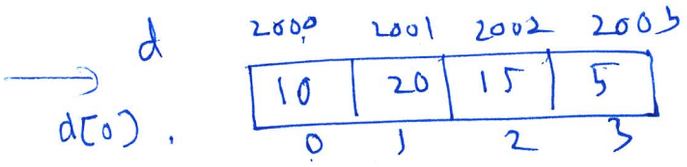
2.When you are finished, scan the completed document into a file and upload it into the drop box provided here.

Or, instead of 1 and 2, you can also write your solutions on paper, scan it and upload your solutions page by page.

4. Exam 1 will be available to you from March 8th (Tuesday)12.30 PM, and you need to complete your exam by March 9th (Wednesday)12.30 PM (within 24 hours of receiving your exam).

5. You will have 60 minutes to complete this exam. Do not close the window or leave - this exam must be completed in one sitting.

6. If you have any issue regarding submission/access, call my phone (4099982301) anytime and email me.



XZR = 0

Homework 2: 6. Convert C++ code snippet to LEGv8 assembly code. The following variables x, y, and z are associated with registers X19, X20, and X21, respectively, and base address of the array d is in X22. Comment the code. (30 Points)

```
b. for (i=0; i<x; i++)
   {
     y = d[i] + z;
   }
```

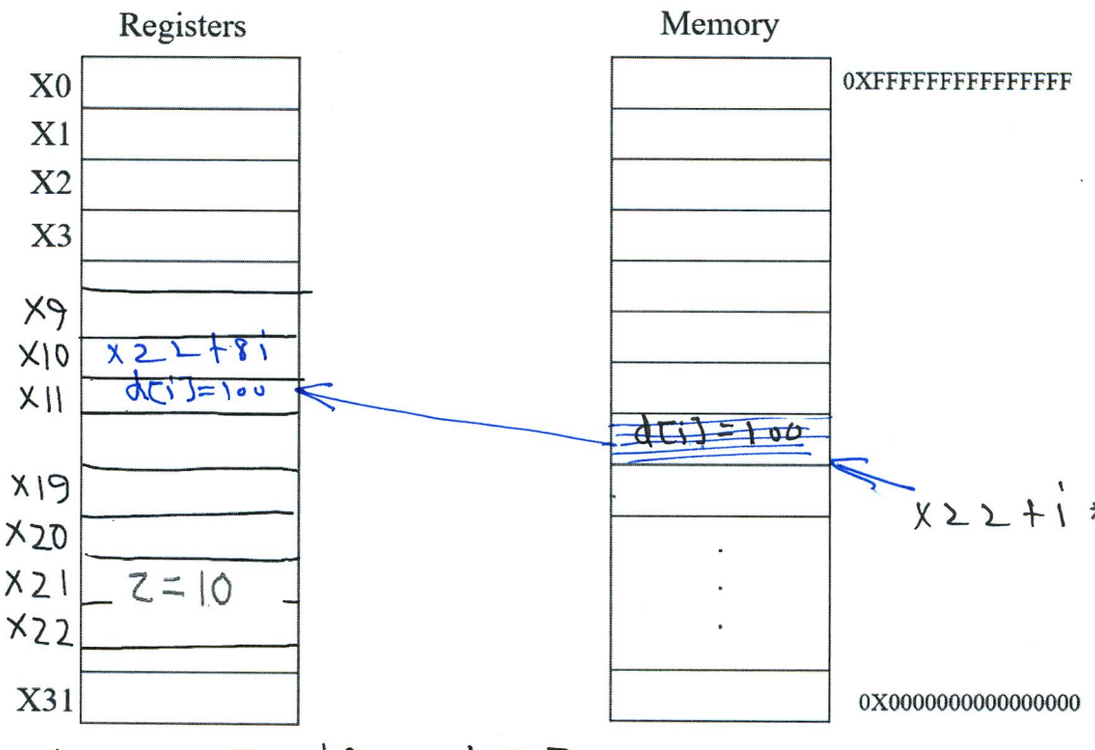
X20 X21

i >= X

X9 → i, X19 → X, X20 → y, X21 → z, X22 → d

```
    ADDI  X9, XZR, #0     // X9 = 0+0 = 0 ∴ i = 0
Loop: CMP  X9, X19        // compare i and X
    B.GE  Exit            // Go to exit if i>=X
    LSL   X10, X9, #3     // X10 = 8 * i
    ADD   X10, X22, X10   // X10 = X22+X10 = X22+8i
    LDUR  X11, [X10, #0]  // X11 = d[i].
    ADD   X20, X11, X21   // X20 = d[i] + z
    ADDI  X9, X9, #1      // i = i + 1
    B     Loop
Exit:
```

$y = d[i] + z$;
100 10

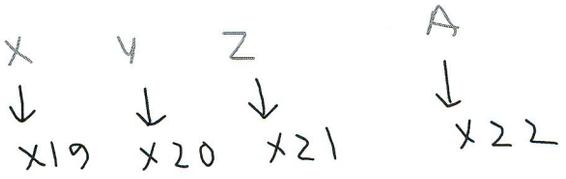


consider, $z = 10$, $d[i] = 100$

Address of $d[i] = x22 + i*8$.
↓
x22

5. Convert C++ code snippet to LEGv8 assembly code. The following variables x, y, and z are associated with registers X19, X20, and X21 respectively, and base address of the array A is in X22. Comment the code. (15 Points)

```
x = x + y;
z = x + 4;
```




```
ADD  X19, X19, X20   // X19 = x + y → X = x+y
ADDI X21, X19, #4    // X21 = x + 4 → Z = x + 4
```