**CSE 5211 Fall 2015 Preliminary Quiz Time: 15 min**

**1.** Subtract the second set from the first one: **{a, b, c, d}\{e, c, f, a}**

**2.** Relate Stack and Queue algorithms with First-In-First-Out and Last-In-First-Out strategies.

**3.** Multiply the two 3x3 matrices:

| 1 2 3 | | 0 0 -1 |

| 2 1 3 | X | 0 -1 0 | =

| 3 1 2 | | -1 0 0 |

**4.** What is "**transitive relation**?"

**5.** A "**tree**" is a graph without any:

**6.** Write in one line what is "**Hashing**?"

**7.** Write a **recursive** code (mention your language, e.g. C, Java, Python, …) for computing Fibonacci number for a given integer *n.* Fibonacci number is defined as:

**f(n) = f(n-1) + f(n-2), for all n>= 2, but f(0) = f(1) = 1.**

*Name:*

*Last four digit of your student Id:*

*E-mail:*

*Your undergraduate university:*