

ID: \_\_\_\_\_

ICS 313-02(002)

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Quiz # 3

Name: \_\_\_\_\_

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**Question 1:**

**(8 points)**

**Mark as True or False:**

- a. **Arrays can be either static, fixed stack-dynamic, stack-dynamic, or heap dynamic.**
- b. **Unions are locations that can store different type values at different times.**
- c. **Pointers have some inherent dangers: Dangling pointers are difficult to avoid; and garbage is difficult to collect.**
- d. **A pointer type is one in which the variable have a range of values that consists of memory addresses only.**
- e. **A set is one whose variables can store ordered collections of distinct values from some ordinal type called its base type.**
- f. **The fundamental difference between a record and an array is the homogeneity of elements in arrays versus the possible heterogeneity of elements in records.**
- g. **An associative array is an unordered collection of data elements that are indexed by an equal number of values called keys.**
- h. **An ordinal type is one in which the range of possible values can be easily associated with the set of real numbers.**

**Question 2:**

**(2 points)**

**Why does a decimal value waste memory space?**

**Question 3:**

**(2 points)**

**Why wouldn't arithmetic on Java references make sense?**