CSCE 330 Fall 2002

Beginning of Course Questionnaire

Monday 02/8/23

1. Did you take CSCI 220 or CSCE 350 [Corrected in class: was 355]? If yes, what was your grade? **Answer:** Yes: 13; No: 14.
2. Did you take CSCI 240 or CSCE 240? **Answer:** Yes: 26; No: 1. If yes, what was your grade?
3. What is the name of MATH 174? **Answer:** Discrete Mathematics for Computer Science.
4. Mention three specific topics that were covered in MATH 174. bf Answers: True false table; truth tables, proofs, probability; P vs NP problems, proofs, probability; truth table, Venn diagram; proofs, slopes, angles; gates, logic; logic, Venn diagrams; logic, equivalences, Venn diagrams, K maps; logic, truth tables, K maps; combinations, permutations, logic; logic, combination/permutation, calculus; true false table, induction; truth tables, set theory, logic statements; probability, Venn diagrams, combinations and permutations; sets, binary arithmetic, proofs (containment, contradiction); conditions, boolean algebra, logic tables; set theory, proofs, number theory, probability; logic, searching, odds.

5. How long (in lines of code) is the longest program you ever wrote? **Answers:** 100 to 5,000, with a large presence of 4,000 (corresponding to gizmo ball, see below).
6. What does this program do? bf Answers: Gizmo ball (from CSCE 240) was a common answer; game of life also appeared multiple times.
7. What language was it written in? **Answers:** Java was by far the most popular
8. What compiler or interpreter did you use? **Answers:** JDK was by far the most popular
9. What is a binary search tree? **Answer:** It is a binary tree whose elements can be compared according to a total order. The following two rules are followed for every node n: (1) every element of n's left subtree is less than or equal to the element in node n. (2) Every element in n's right subtree is greater than the element in node n. (This definition is adapted from

p.461 of: Main, Michael. *Data Structures and Other Objects Using Java.* Addison Wesley, 1999.)

10. Define *directed graph.* **Answer:** A directed graph is a pair (V,E), where V is a finite, non-empty set whose elements are called vertices (or nodes or points), and E is a set of ordered pairs of distinct elements of V. Elements of E are called edges (or arcs).

11. If p is false and q is true, $p \Rightarrow q$ is false. True or false? **Answer:** False, i.e., If p is false and q is true, $p \Rightarrow q$ is true. (Thirteen students answered true, eight answered false.)

12. Give an example of a functional language. **Answers:** ML was the most common correct answer. LISP also occurred.

13. What do you expect to learn from this course?