

**CSI 518 Software Engineering**  
**Fall 2000 Final Examination**  
**December 18 Monday 10:30 - 12:30**

Q1: (10 points) Describe the key differences between software verification and software validation and give an example technique for each activity.

Q2: (10 points) What is software reliability and what are the objectives of software reliability measurement?

Q3: (10 points) What are the three major types of software maintenance activities? (Give a brief description for each activity.)

Q4: (10 points) What is software configuration management and what are the key activities in software configuration management?

Q5: (10 points) What types of software would need to be re-engineered and what are the factors used to determine re-engineering or re-developing?

Q6: (20 points) (a) Describe the key differences between black-box and white-box testing approaches. (b) Compare the strengths and the weaknesses between the two approaches. (a) List one testing technique for each approach.

Q7: (20 points) What is CORBA? Describe the structure and the significance of CORBA.

Q8: (10 points) Team evaluations.

**Team leaders:** evaluate your group leaders, significant team members and volunteers.

**Group leaders:** evaluate your team leader, group members and volunteers.

**Others:** evaluate your team leader, group leader and other members in your group.