Computer Science
Homework for Chapter 7   **Due: 2010/5/19**

_____1. The Pareto principle is traditionally applied during which phase of software development?

A. Analysis   B. Design   C. Implementation   D. Testing

_____2. Which of the following is the method proposed by UML for representing sequences of communication between objects?

A. Class diagram   B. Use case diagram
C. Collaboration diagram   D. Generalization

_____3. Which of the following is a means of controlling the complexity of a software system?

A. CRC cards   B. Modularity   C. Specifications   D. Beta testing

_____4. Which of the following software engineering methodologies is the most rigid?

A. Incremental model   B. Waterfall model
C. Extreme programming   D. Evolutionary prototyping

_____5. Copyright laws were established

A. to allow authors to distribute their work while maintaining certain ownership rights.
B. to allow authors to maintain ownership of their ideas.
C. to restrict access to publications to certain groups within society.
D. to allow ideas to be traced back to their origins.

6-8. In each case below indicate whether the activity relates to glass-box testing or black-box testing

_____6. Testing to see if the system performs in a timely manner

A. glass-box testing   B. black-box testing

_____7.Designing test data to ensure that each instruction is executed at least once

A. glass-box testing   B. black-box testing

_____8. Testing to see if the software system meets the requirements identified during original analysis

A. glass-box testing   B. black-box testing

9. In the following table, connect the term to each phrase that gives the best description of the term.   (40%)

Term		Descriptive Phrase
glass-box testing	_____	**A.** A means of quantifying
component architecture	_____	**B.** Develop, use, modify
analysis	_____	**C.** An older, rather rigid approach to software development
software life cycle	_____	**D.** An approach to software development in which partial systems are constructed
case use diagram	_____	**E.** A means of constructing software from prefabricated units
global data	_____	**F.** A means of representing procedural dependencies
modularity	_____	**G.** The "glue" that holds a module together
structured walkthrough	_____	**H.** A diagram representing communication between objects
cohesion	_____	**I.** A diagram representing communication between a system and its users
metric	_____	**J.** A standard notational system for representing object-oriented designs
structure chart	_____	**K.** A means of implementing implicit coupling
prototyping	_____	**L.** A means of managing complexity within a large software system
specifications	_____	**M.** A means of testing a design before it is implemented
waterfall model	_____	**N.** Allows potential users to experiment with preliminary versions of software
open-source development	_____	**O.** Confirms that the internal structure of a software system is reliable
UML	_____	**P.** A somewhat renegade methodology for software development
top-down	_____	**Q.** The beginning of the software development phase
data dictionary	_____	**R.** System requirements translated into technical context
collaboration diagram	_____	**S.** A central warehouse of information regarding data throughout a system
Beta testing	_____	**T.** General to specific (as opposed to specific to general)