

COMP 5/6710 Software Quality Assurance
Test 1 – February 20, 2015

Total: 100 points

Name: _____

1. The major activities in software maintenance can be classified into four categories: *corrective*, *perfective (or enhancement)*, *adaptive*, and *preventive*.
 - a. Describe the purpose of each activity. (12)
 - b. Among these activities, which one normally happens most often? (3)

2.
 - a. Define software failure and software fault. (5)
 - b. Why is it possible that some faults would cause more failures than others? (5)
 - c. What is the Pareto Principle? (5)
 - d. How would Pareto Principle impact testing? (5)

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6. Define the following terms: (12)

a. Black box testing

b. White box testing

c. Static testing

d. Dynamic testing

7. A portion of our ATM machine requirements is given below:

... Among many functions, the ATM should be able to do withdraw, deposit, transfer, inquiry, and currency exchange. The allowed withdraw range is somewhere between \$40 and \$450, and the withdraw amount must be multiples of \$20. It is very important to have an easy-to-use, modern, and effective user interface. In case of unusual usage, the machine should lock down itself and stop delivering any cash. ...

Point out (by **circling the words**) and **explain** potential problems for this portion of requirements. Also, **suggest** how the problems can be resolved, e.g., using different words, eliminating or adding words. (18)