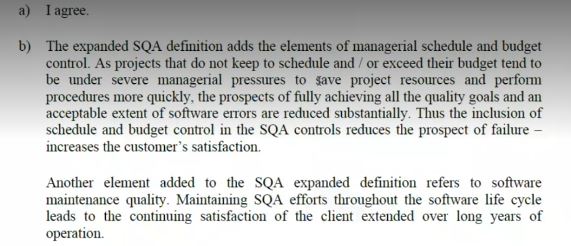
1. It is claimed that the expanded definition of SQA supports those who are interested in

increasing client satisfaction.

a) Do you agree with this claim?

b) If yes, provide arguments to substantiate your position



2. The software requirement document for the tender for development of “Super-lab,” a

software system for managing a hospital laboratory, consists of chapters according to

the required quality factors as follows: correctness, reliability, efficiency, integrity,

usability, maintainability, flexibility, testability, portability, reusability and

interoperability.

In the following table you will find sections taken from the mentioned requirements

document. For each section, fill in the name of the factor that best fits the requirement

(chose only one factor per requirements section).

The probability that the “Super-lab” software system will be found in a

state of failure during peak hours (9 am to 4 pm) is required to be below

0.5%. **reliability**

The “Super-lab” software system will enable direct transfer of laboratory

results to those files of hospitalized patients managed by the “MD-File”

software package. **interoperability**

The “Super-lab” software system will include a module that prepares a

detailed report of the patient’s laboratory test results during his current

hospitalization. (This report will serve as an appendix to the family

physician’s file.) The time required to obtain this printed report will be

less than 60 seconds; the level of accuracy and completeness will be at

least 99%. **efficiency**

The “Super-lab” software to be developed for hospital laboratory use

may be adapted later for private laboratory use. **flexibility**

The training of a laboratory technician, requiring no more than 3 days,

will enable the technician to reach level C of “Super-lab” software

usage. This means that he or she will be able to manage reception of 20

patients per hour. **usability**

The “Super-lab” software system will record a detailed users’ log. In

addition, the system will report attempts by unauthorized persons to

obtain medical information from the laboratory test results database. The

report will include the following information: the network identification

of the applying terminal, the system code of the employee who requested

that information, the day and time of attempt and the type of attempt. **integrity**

The “Super-lab” subsystem that deals with billing patients for their tests

may be eventually used as a subsystem in the “Physiotherapy Center”

software package. **reusability**

The “Super-lab” software system will process all the monthly reports for

the hospital departments’ management, the hospital management, and

the hospital controller according to Appendix D of the development

contract. **correctness**

The software system should be able to serve 12 workstations and 8

automatic testing machines with a single model AS20 server and a CS25

communication server that will be able to serve 25 communication lines.

This hardware system should conform to all availability requirements as

listed in Appendix C. **flexibility**

The “Super-lab” software package developed for the Linux operating

system should be compatible for applications in a Windows NT

environment. **portability**

3. “Quantitative measures are usually preferred to qualitative measures when choosing

quality goals because they provide the developer with more objective assessments of

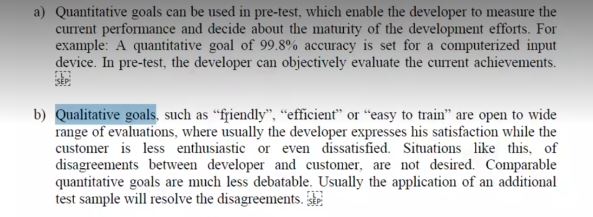
software performance during the development process and system testing. However,

one type of goal is not totally equivalent to the other.”

a) How are quantitative goals applied during the development process?

b) Explain in what way quantitative goals enable more objective evaluation of

performance when compared with qualitative goals.



4. Some people claim that testability and verifiability are actually different names for the

same factor.

a) Do you agree?

b) If not, could you explain why? 