Quality Attributes for Technical & Domain Testing Homework
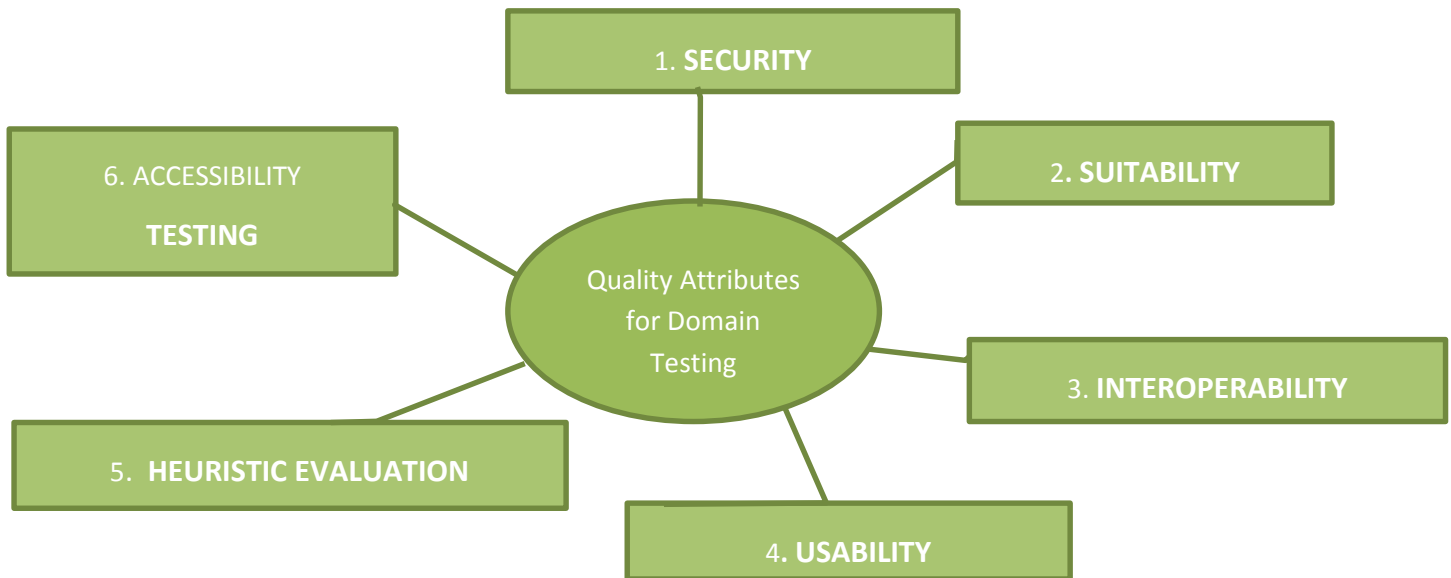
1. You have a sample tests. Determine which characteristic of the software they are meant to test.

Test	Characteristic
Calculate the monthly discount for a client that is loyal for more than 3 years. Check if the system gives the same result.	Accuracy
Check if the "zoom in" options work as they should.	Accessibility
Check if you could access the system using SQL injection to log in instead of valid user credentials.	Security
Check how the system behaves under Windows XP, Windows phone 7.5 and Android.	Portability
Check if the new version of the application works with the old data base.	Maintainability
Check if the response time of the menu is less than 1.5 seconds.	Efficiency
Check if the application exports documents that can be opened with excel 2003.	Interoperability
Check if the system shows all the details needed to complete a contract with a client according to the specifications for that function.	Suitability
Check if the application works under the mentioned in the specification minimum hardware and software requirements.	Reliability
Open the application and see a client's profile. The services he/she uses. See if he/she contacted the call center or has sent a mail.	Usability

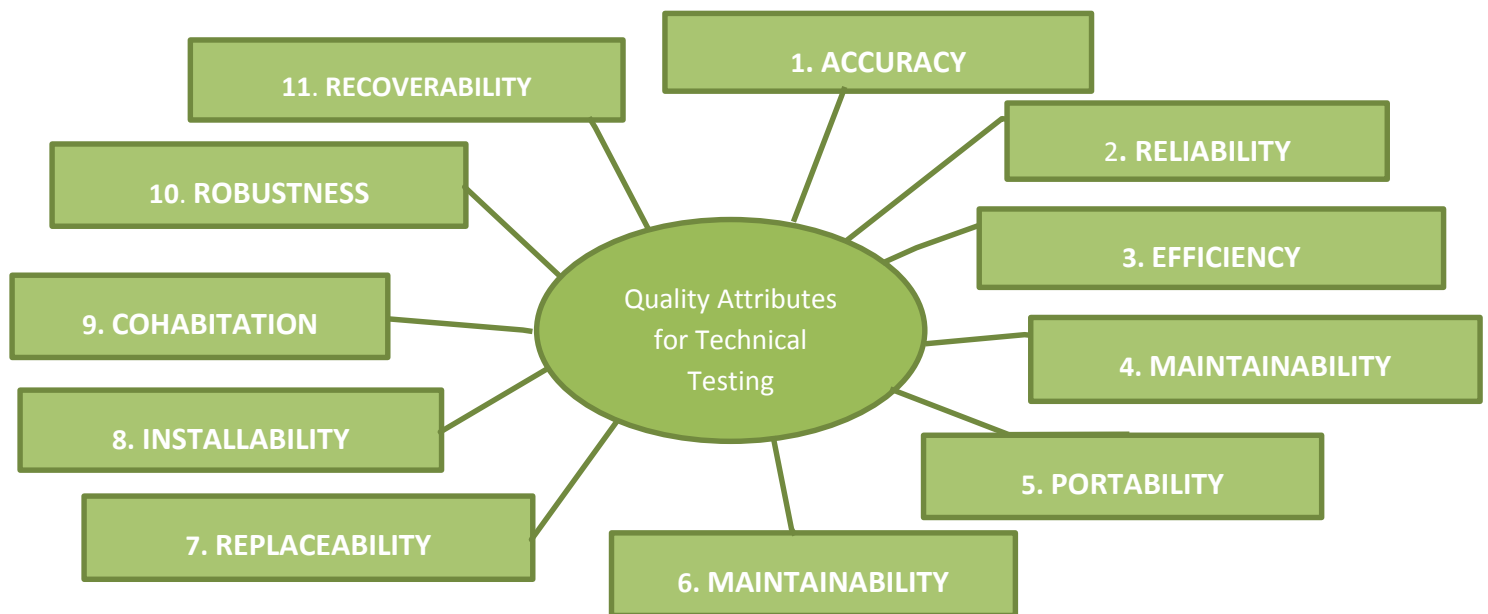*(10 positions X 1 point)* **10 points**

2. Fill in the right term.

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                          ┌─────────────────────┐
                          │   1. SECURITY       │
                          └─────────────────────┘
┌──────────────────┐                      ┌─────────────────────┐
│ 6. ACCESSIBILITY │                      │  2. SUITABILITY     │
│                  │         ╭─────────╮  └─────────────────────┘
│   TESTING        │         │ Quality │
└──────────────────┘         │ Attributes
                             │ for Domain
                             │ Testing │   ┌──────────────────────┐
                             ╰─────────╯   │ 3. INTEROPERABILITY  │
┌──────────────────────┐                   └──────────────────────┘
│ 5. HEURISTIC         │
│    EVALUATION        │         ┌─────────────────────┐
└──────────────────────┘        │  4. USABILITY       │
                                └─────────────────────┘
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1. Attributes of a software product that bear on its ability to prevent unauthorized access, whether accidental or deliberate, to programs and data

2. The capability of the software product to provide an appropriate set of functions for specified tasks and user objectives

3. The capability of the software product to interact with one or more specified components or systems

4. The capability of the software to be understood, learned, used, and attractive to the user when used under specified conditions

5. Static usability test technique to determine the compliance of a user interface with recognized usability principles

6. Tests the ability of users with particular requirements, restrictions, or disabilities to use the system

(6 positions X 1 point) **6 points**

3. Fill in the right term.

11. RECOVERABILITY	1. ACCURACY
10. ROBUSTNESS	2. RELIABILITY
9. COHABITATION	3. EFFICIENCY
8. INSTALLABILITY	4. MAINTAINABILITY
7. REPLACEABILITY	5. PORTABILITY
	6. MAINTAINABILITY

Quality Attributes for Technical Testing

1. The capability of the software product to provide the right or agreed-upon results or effects with the needed degree of precision

2. The ability of the software product to perform its required functions under stated conditions for a specified period of time or for a specified number of operations

3. The capability of the software product to provide appropriate performance, relative to the amount of resources used under stated conditions

4. The ease with which a software product can be modified to correct defects, modified to meet new requirements, modified to make future maintenance easier, or adapted to a changed environment

5. The ease with which the software product can be transferred from one hardware or software environment to another

6. The capability to be adapted for different specified environments without applying actions other than those provided for that purpose

7. The capability to be used in place of another specified software product for the same purpose in the same environment

8. The capability to be installed in a specific environment. We will include uninstallability in this category

9. The capability to coexist with other independent software in a common environment sharing common resources

10. Deliberately subjecting a system to negative, stressful conditions

11. The system's ability to recover from some hardware or software failure in its environment

(11 positions X 1 point) **11 points**

4. Fill in subcategories for each main category.

Functionality
Suitability
Coexistence
Security
Accuracy

Reliability
Maturity (robustness)
Fault tolerance
Stability

Usability
Learnability
Understandability
Attractiveness
Operability

Efficiency
Resource utilization
Time behavior

Maintainability
Adaptability
Testability
Analyzability

- ✓ **Suitability**
- ✓ **Security**
- ✓ **Stability**
- ✓ **Understandability**
- ✓ **Interoperability**
- ✓ **Analyzability**
- ✓ **Installability**
- ✓ **Maturity (robustness)**
- ✓ **Recoverability**
- ✓ **Accuracy**
- ✓ **Adaptability**
- ✓ **Learnability**
- ✓ **Attractiveness**
- ✓ **Testability**
- ✓ **Fault tolerance**
- ✓ **Time behavior**
- ✓ **Operability**
- ✓ **Coexistence**
- ✓ **Resource utilization**
- ✓ **Replaceability**

Portability
Installability
Replaceability
Recoverability
Interoperability

(20 positions X 1 point) **20 points**

5. This is exercise about Functional vs. Non-Functional Testing. Your tast is to locate each sentence in the correct colmn below.

Functional Testing	Non-Functional Testing
✓ Focuses on what the system does	✓ Unit Testing
✓ Integration Testing	✓ Regression Testing
✓ Smoke Testing	✓ Stress Testing
✓ Penetration Testing	✓ Using tools will be effective for this testing
✓ Should be performed after functional testing	✓ Focused on how the system does what it does
✓ Business requirements are the inputs to this testing	✓ This testing is executed first
	✓ Installation Testing
	✓ Migration Testing
	✓ White box testing
	✓ Performance Testing
	✓ Tough to do manual testing
✓ Compatibility Testing	✓ Volume Testing
✓ Easy to do manual testing	✓ Load Testing Security Testing
✓ User Acceptance testing	✓ Performance parameters like speed, scalability are inputs to

- ✓ Black Box testing
- ✓ Sanity Testing

this testing
- ✓ Manual testing or automation tools can be used

(27 positions X 1 point) **27 points**