SQ test 2

Q1

I found a calculator in Internet and it gives 2*2=11. Which of the following is the best answer?

A)This is an error

B)We do not know if this is an error

C)This is not an error

D)The calculator program has a virus

Q2

I am an accountant working with the balance sheet and my accounting system gives 2*2=11. Which of the following is the best answer?

A)This is an error

B)We do not know if this is an error

C)This is not an error

D)The accounting system has a virus

Q3

Requirement: "The system must be efficient and give fast responses". Which of the following is the most correct?

A.This is a functional testable requirement

B.This is a functional nontestable requirement

C.This is a nonfunctional testable requirement

D.This is a nonfunctional nontestable requirement

Q4

Requirement: "The system must be available under all external operating conditions". Which of the following is the most correct?

A.This is a realistic testable requirement

B.This is a realistic nontestable requirement

C.This is an unrealistic nonfunctional requirement

D.This is an unrealistic functional requirement

Q5

Use plan-driven processes

1. When the requirements are well-understood and stable
2. When plan-driven tools are available
3. With strict deadlines and costs
4. When the customer is less cooperative

Q6

Use incremental processes

1. With frequent changes
2. With flexible deadlines and costs
3. With processes involving several states
4. When the customer is cooperative
5. With certain types of customers and/or projects, eg related to end-user experience

Q7

Software product may comprise

A)Source and executable code
B)Documentation
C)Licences
D)All of the above

Q8

In the system maintenance, changes into software are introduced in established and documented process involving three environments (development, testing, and operational environment); automated testing, release management; etc. Claims:

1.This reduces risks
2.This is the correct way to software quality
3.Should not be done in this way
4.Do not know if this is OK

Q9

" degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use" refers to:
A. user error protection
B. accessibility
C. compatibility
D. interoperability

Q10

Number of tests in a statement coverage test suite and branch coverage test suite is different in case of

A. Assignment expression
B. if-then statement (without else)
C. if-then-else statement
D. Arithmetic operator

Q11

```
public class IfExample {
.....
if(i > 100)
    System.out.println("i is greater than 100");
```

```
else if(i > 50)
        System.out.println("i isgreater than 50");
}}
```

How many tests for this fragment:
A. Statement coverage - 3 tests
B. Branch coverage - 3 tests
C. Statement coverage - 4 tests
D. Branch coverage - 4 tests

Q12

True or false? Static methods, eg walkthroughs, are useful because:
1.They can replace very expensive tests
2.They are easier to arrange than tests
3.Developers like them
4.They find errors early

Walkthrough: advantages

- errors can be found at early steps of development
- the best way of reducing errors
- team contacts improve
- productivity and quality are improving
- people can be replaced

Walkthrough problems

- group members can be from different departments
- group members can be different: with high IQ, impatient, conservative, not very interested of “real world", prefer privacy etc
- nobody likes criticism, in extreme cases co-operation declines
- wrong meeting management

Static analysis. What? Why?

Analysis of software artifacts, e.g. requirements or code, carried out without execution of these software artifacts (ISTQB)

Why?

- Errors are discovered at the early steps of development
- Some tests are very expensive
- Some requirements are very difficult to test (e.g., due to high cost, excessive duration)
- Several important system qualities are difficult to evaluate by testing (e.g., maintenance criteria, accessibility)
- It is not possible to test all situations, so some errors are difficult to find by testing
- Reliability gained with testing has limits

Q13

Participation of the boss in a walkthrough:

1.Is useful because this helps to limit unnecessary discussions

2.Is useful because the boss receives feedback about the team member's ability

3.Is useful when the boss participates as team member in the substantive work of the project

4.Is generally undesirable

Q14

Motivations for explicit architecture include:

1. Stakeholder communication

2. System analysis and design
3. System documentation
4. System testing
5. System reuse

Q15

To cover requirements with equivalence partitioning and boundary values, consider the following statements:
1. One value from an equivalence class is selected (probably from billions)
2. Tests must cover all classes / boundaries but not all combinations of these must be tested
3. Only normal work tests are executed, error values are not tested
4. Maximum number of new classes / boundaries are combined into each test

Q16

A program has two inputs: distance (in km) and speed (in km/h). Which of the following is least
recommended as a test input?
A.Distance = "88f", speed= "85"
B.Distance = "120", speed= "85"
C.Distance = "45", speed= "-9"
D.Distance = "-3", speed= "100a"

Q17

Release management process includes:
1. Managing, planning, scheduling and controlling a software build through different stages and environments
2. Testing and deploying software releases
3. Planning software architecture
4. Test driven development

Q18

The tester: "For testing the warehouse system UI there was no time left. So I just logged in, saw that it was doing something

realistic, and left". Could it be:
A.Smoke testing
B.Risk based testing
C.Expert testing
D.Exploratory testing

Q19

Which of the following gives a systematical coverage of a program or its artefact?
A. Boundary value analysis
B. Exploratory testing
C. Experience based testing
D. Smoke testing

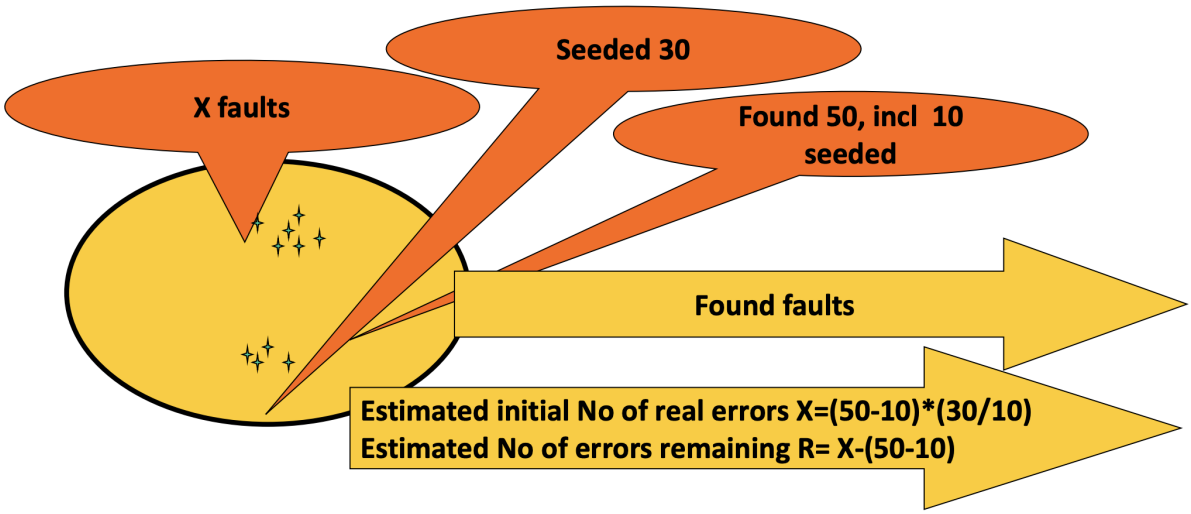
Q20

Reliability can best be estimated by:
A.Risk based testing
B.Random testing
C.Functional testing with equivalence classes
D.Developer testing during programming

Q21

In fault seeding, 60 errors were added. In testing, 90 errors were found, including 20 added errors. It can be expected that after testing there are:
A.20 added and 80 initial errors
B.40 added and 100 initial errors
C.40 added and 120 initial errors
D.40 added and 140 initial errors

Example



Q22

Which of the following are maintenance metrics?
1. Number of languages supported by the system
2. Usability with different browsers
3. Time to fulfil a service request
4. Time to reinstate a service after a major failure

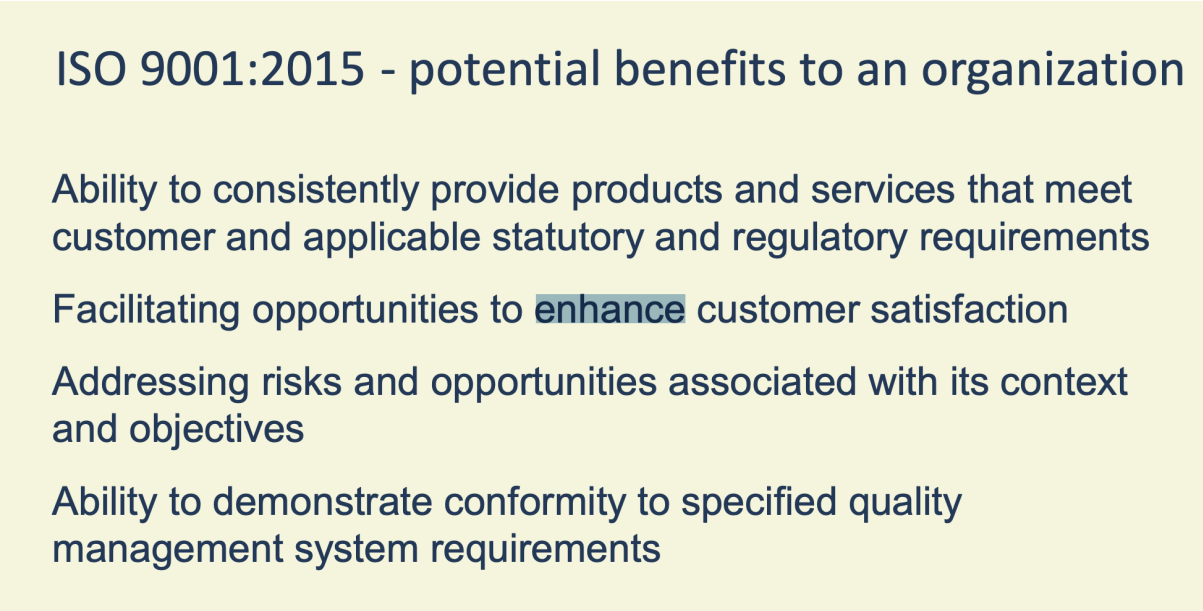
Q23

Software development effort and cost prediction
1. Is needed for the acquirer, not for the developer
2. Needs calibration for the given organisation
3. Can be done using TDD
4. Can be done using COCOMO model

Q24

ISO 9001 is intended to:
1. Enhance customer satisfaction
2. Be used with specific verification, testing and validation methods
3. Address risks and opportunities associated with enterprise

context and objectives
4. Prescribe the quality manual documentation structure
5. Demonstrate conformity to specified quality management system requirements



Q25

Which combination is the best?
1. White box testing is performed by developers
2. White box testing is performed by purchasers
3. Quality management is lead by developers
4. Quality management is lead by management