

Rushra Ghaffar (SE-19019)

Subject: SQE(SE-309)

Roll# & Section SE-19019.

Test(b) Module 1 [Marks:5]

Instructions: You can pick questions in any order but all parts of a question must attempt altogether

- 1.a It is claimed that expanded definition of SQA supports those who are interested in increase client satisfaction. Do you agree? Justify your opinion with suitable examples or arguments [2]
- 1.b Why involvement of SQA is mandatory in SDLC, Explain. [2]
- 1.c Why it is important to prepare SQA plan for a project? Explain [1]

Test(b) Module 2 [Marks:5]

- 2.a Differentiate Static and Dynamic Testing techniques, also elaborate importance of each technique. [2]
- 2.b Consider the example of Login Screen. System can return successful login message if and only if correct Email and Password are provided, A message of "Fail Attempt" will return otherwise. Create Decision Table, Reduced Table and design test cases for above mentioned scenario. [2]
- 2.c Write down possible input(s) and output(s) of project designing and Testing phases [1]



The image shows a login form with two input fields: "Email" and "Password". The "Email" field has an envelope icon on the right, and the "Password" field has a lock icon on the right. Below the fields is a button labeled "Login".

Test cases for Login Screen:

Test Case Name = Login Screen

Designed by = Brijshree Ghaffar
Designed Date = 19-May-2022

SNO	Test Case	Test Step	Test Data	Exp o/p	Actual o/p	Status
01	Input valid Id or valid Password	Enter ID Enter password Click login	bushud@gmail.com abcd1234	Screen show Successful login message	screen showing Successful login Message	pass
02	Invalid ID Valid password	Enter ID Enter password click login	Abshud@gmail.com ab 2d1234	Should display fail attempt message	Showing fail attempt message	pass
03	Valid ID Invalid password	Enter ID Enter password click login	bushud@gmail.com 123 <i>only</i>	Should display fail attempt message	Showing fail attempt message	pass
04	Invalid ID Invalid password	Enter ID Enter password click login	b@gmail.com 578	Message should display fail attempt	Showing fail attempt message	pass

Q2(a)

→ Yes, I agree.

→ Because the expanded definition of SQA support proper scheduling and budgeting strategy that increases the client satisfaction.

for Example:

If a client wants a management system in 3 months with a budget of 80 Lacs. But the team build that system in 5 months with a budget of 97 Lacs then it would not be satisfactory. But if we follow the SQA expanded definition then this system will be build in 3 months with a budget of 80 lacs then client would be satisfied.

Q1(c) Importance of SQA plan:

→ It is important because it deals to build test cases for tasks to be performed.

→ It also tells the three things which is important

① What: it means which aspect of software would be tested to
i.e. (document including scope, approaches, resources and schedule of project)

② Who: it means who is responsible for conducting the tests
(i.e. QA)

③ When: It means when and in which phase tests are conducted
i.e. (planning, designing, ...)

Q1 (b)

- SQA is mandatory in SDLC because it ensures at every step of SDLC even at requirement gathering to if the requirements are documented correctly.
- It is also mandatory because it ensures the software works correctly according to the customer's requirement, expectation and demand throughout the SDLC. (02)
- It prevents failure, means due to SQA we can detect errors in the phase which they occur. If we donot use SQA then errors preceding to other phases and, ~~lastly~~ at the end system is failed.
- It also tells the scheduling and budget. Requirements that's why it is mandatory in SDLC.

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Static Testing

- 1- It is related to verification
- 2- It involves checklist for testing process
- 3- It is done before compilation
- 4- It is performed for prevention of defects



Dynamic Testing:

- 1- It is related to validation.
- 2- It involves test cases for testing process.
- 3- It is done after compilation
- 4- It is performed for finding and fixing defects.

Importance

- | | |
|--|---|
| <p>1- It is important because it saves a lot of time when we are checking if all functionalities are implemented or not.</p> | <p>1- It is important because it provides accuracy when we are checking if all functionalities are working correctly.</p> |
|--|---|

2(c) phase

Input

Output

Designing	- SRS, SDD	- Signoff Design Document - Test plan ¹⁶⁵⁷ - Testing effort estimation
Testing	- Test plan - Test environment - Test Data - Develop application	- Test summary Report - Quality product or application.



2(b)

conditions:

 $C_1 = \text{Email Id. (correct/valid)}$ $C_2 = \text{password (correct/valid)}$

Action:

- Login.
- Not login.

columns = 2 Condition

Columns = $2^2 = 4$ columns.**Design Table:**

Conditions	Rule 1	Rule 2	Rule 3	Rule 4
C_1	F	F	T	T
C_2	F	T	F	T
Actions	N	N	N	Y

Reduced Table:

Conditions	Rule 1-2	Rule 3	Rule 4
C_1	F	T	T
C_2	-	F	T
Actions	N	N	Y

* Assumption:

Here (-) represents any data either it is true or false.

1.2