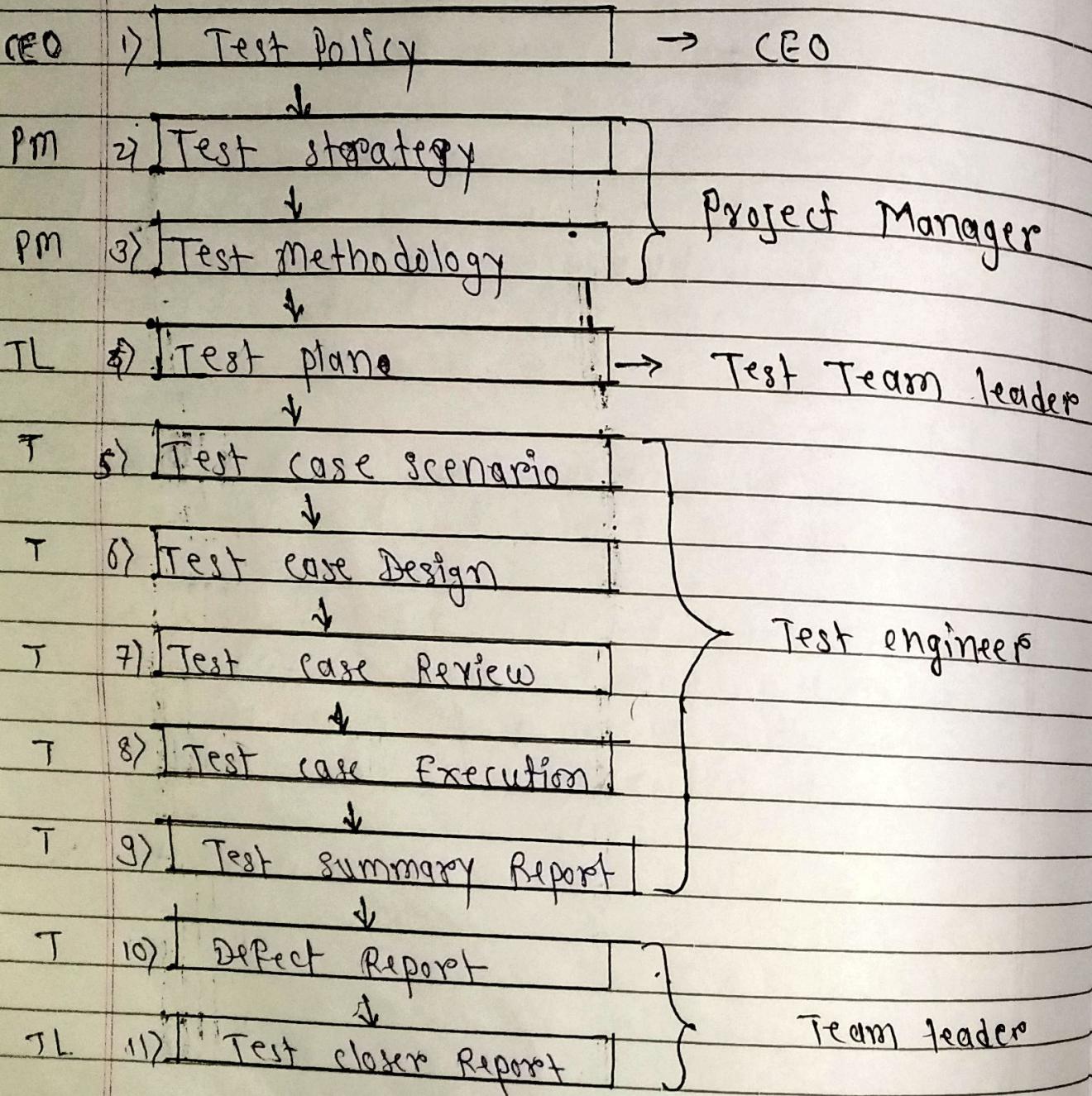


Manual Part - 2

* Depth part of Testing :-



→ * 1) Test Policy :-

- It is company level document
- It is prepared by the CEO
- Test policy document or using test policy doc.
They are going to decide objective of project like-
 - How I can earn more revenue from which domain
 - Healthcare domain
 - Banking domain
 - Telecom domain

→ * 2) Test strategy

- It is project level document
- It is prepared by project manager
- In test strategy document, project manager is going to decide how I can achieve the objective which is mentioned in test policy document
- Ex → KT process whether implement automation or manual, Risk management.
- In test strategy document have different different test approaches

- 1) Scope & objective
- 2) Business Issue
- 3) Test Responsibility Matrix
- 4) Test deliverables

- 5) Roles & Responsibilities
- 6) Communication status Reporting
- 7) Defect tracking & reporting
- 8) Implementation of Automation
- 9) Test measurement
- 10) Risk & mitigation
- 11) Training plan & Training session

* 1) Scope & Objectives :-

- Project manager decide purpose of project
- He is going to decide scope & objective of particular project
- Scope -

What are the functionalities we are going to include in our project

3)

→ Objective -

What are the functionalities which I have included in my project should be working those functionalities.

* 2) Business issue -

- In business issue they are going to do cost analysis depend upon domain of project and Resources involved
- 75% spent on developer & 25% spent on tester i.e. developer to tester ratio = 3:1

Q) Ans

→ Resource involved are developer and tester

* 3) Test Responsibility Matrix (TRM) :-

→ It is mapping betn test issue Factor / Test factor & development stage.

→ So development stage are information gathering, Analysis, design, development, testing & maintenance

→ TRM create by project manager

TRM →

	Information Gathering	Analysis	Design	Code	Test	Maintenance
Traditional	✓	✓	✓	✓	✓	✗
Off the shelf	✓	✓	✗	✗	✓	✗
Maintenance	✗	✗	✗	✗	✗	✓

* → Test Factor are

1) Authorization

→ Authorization means whether the particular person is authorized or not to access the particular field or operation

⇒ Access control -

⇒ Access Control means whether the authorized person has permission to access specific operation or not

Test Factor

Testing

- 1) Authorization → Security Testing
- 2) Access control → security testing
- 3) Audit Trial → Database Testing
- 4) Correctness → Functional Testing
- 5) Continuity of processing → W.B.T (Integration) Test
- 6) Coupling → Inter System Testing
- 7) Easy of use → Usability / Accessibility
- 8) Easy to operate → Installation Testing
- 9) File integration → Recovering or backlog Testing
- 10) File Reliability → Recovery / Reliability Test

- i) performance → Performance Testing
- ii) Portability → Compatibility Testing
- iii) Service level → Service Level Testing
- iv) maintenance
- v) Methodology

* → Audit Trial -

- Audit trial means maintain metadata
- metadata is nothing but data about data

→ Ex. Mini statements

we are going to fetch 10 statement first out of 1000 records.

Here, we are going to perform database testing

⇒ Correctness -

→ Here we are going to perform functional testing as per customer requirement.

⇒ Continuity of processing :-

- It is a communication b/w two process
- Ex. Integration Testing

⇒ Coupling :-

- share the data b/w two system
- Testing Required - Inter System Testing

⇒ Easy to operate :-

- As per the customer requirement application should be easy to use
- Installation should be proper
- Testing Required - Installation testing.

⇒ File Integration :-

- Here we are going to create back-up of file
- Testing Required :- Recovery or backup Testing

⇒ Performance :-

- Performance is nothing but we are going to check speed of processing of our application
- Testing Required - Performance testing.

⇒ Portability :-

- Application should be run on different different type of platform
- speed of processing
- Testing Required - compatibility Testing

⇒ Service level :-

- Order of functionality on the basis of functional flow diagram

⇒ Methodology :-

- Which type of methodology or model will be used to develop a particular project.
- ex. Agile, V, Waterfall model

* 4) Test deliverable :-

- Test deliverable means we are going to provide testing Related document to client
- Ex. Test cases, Test status Report, defect Report, user manual

- We can not go to second stage without completing first stage, means in short once SRS is completed then next stage will be start i.e. SRT preparation will be start

→ Ex. If there are 3 going to perform

Team lead divide Responsibility b/w them like 1 for UAT, 1 for VAT, 1 for negotiation.

6) Communication Status Report :-

- How the communication is going on in team is which type of meeting should have to take
- Minutes of meeting done with customer
- Daily update in meeting Report in mom doc. sent pm.

7) Defect Tracking & Reporting :-

- Proper communication b/w development team and testing team
- To manage or to track the defect, defect management team will conduct daily defect triage call
- In this call development team & testing team is include
- In that call they are going to decide which defect should be fixed first.
- Also they are going to discuss, if any

Defect is invalid those defects they are going to report

8) Implementation of Automation:

- Decide whether to implement automation or not.
- If automation is implemented then benefit are high accuracy, less time, less resources, less human efforts.

*) Example of Defect tracking report.

Defect ID	Status	Allocated person
1234	open	
5678	open	Om
9123	reject	Rahul

- This is carry by defect management team!
- This list is presented in triage call
- This triage call happen in a message
- Then defect management team can ask to developer what is status of defect fixation
- Then responsible person have to do reply to defect management team
- So same way defect management team can ask to developer whether this defect is real defect or not.
- Then developer can maintain defect or cancel it

→ we can move to next stage when all open defect get solve & budget should be 0.
→ when dev solve defect then we request it if doesn't → when developer reject any defect then it doesn't mean that it is bad defect then we do requesting & ask dev to solve.

3) Test measurement :- (Defect Removal Efficiency)

DRE

→ In short how you are going to measure the test ~~error~~ case defect
→ so, we used DRE. For the measurement
→ There Form. $DRE = \frac{A}{A+B}$ DRE=Defect removal efficiency.

at the end 2000 defect found & so 90% test 1800 get solve for measurement so 200 get cancel for testing is good.

4) Risk & mitigation :-

→ Risk means problem will occur in the project
→ Mitigation means solution of that problem
→ If any problem is occurred during the testing then the soln to overcome the testing

10) Training plan & Training session :-

→ Give KT (Knowledge Transfer) to new member

- Whatever the KT session will arrange is called training session
- who give KT is assign to proficulare team
-

★ 3) Test methodology:-

- It is project level document in which project manager is involve
- He if decide which type of test or factor we have in our project base on project type & requirement
- Project manager use test strategies to finalize test methodology
- * Suppose there is team of 15 people who do diff. diff. testing form that 10 to 12 get selected as per test methodology.
- Project manager focus on diff. factors like
 - ① writer test strategy documents (Tech fm)
 - ② determine project type
 - ↳ Traditional project ex (All stage perform)
 - ↳ off the shelf project ex (Testing company)
 - ↳ maintenance project ex (Tech maintenance main no one)

	R&D	A	D.	C	T	M
Tradition	✓	✓	✓	✓	✓	✗
off the shelf	✓	✓	✓	✗	✗	✗
maintenance	✗	✗	✗	✗	✗	✗

→ Determine project requirements:-

→ They are going to decide the ~~the < Test Factor~~ requirement as per domain of the project
→ According to ~~the~~ project Requirement project manager decide team size

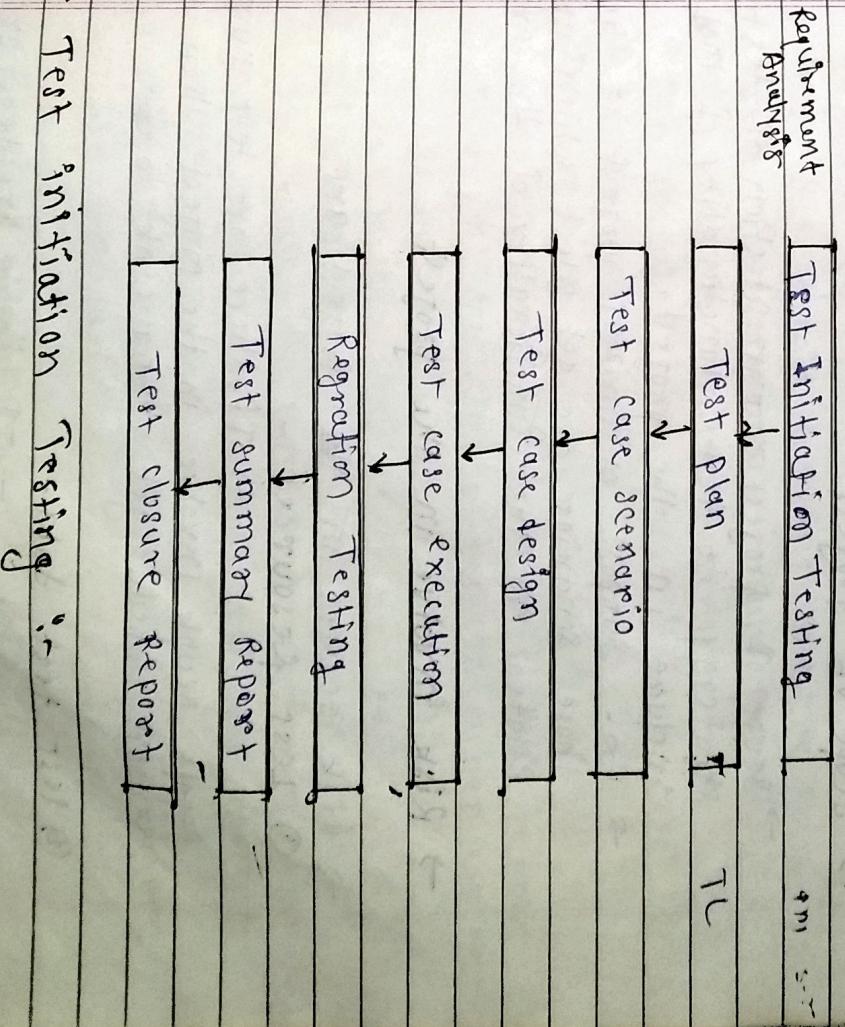
→ Identify scope of application :-

→ If project is banking domain then bank has different department or different module
→ Those test are selected which are related to functionality of that application
→ what we check what is included feature + modules.
→ ~~for~~ risk in project

→ What are risks
→ If test person are involve in team then they have to do extra work
→ If we don't have any knowledge about the application explore it perform
→ TRM
→ TRM is mapping betn Test issue on factors
+ Development.

Software Testing life cycle (STLC)

- STLC is a part of SDLC
- SDLC contains whole process of software development
- However STLC defines only testing process
- (means only focusing on testing process)
- STLC contains different - different type of testing phase.



- 1) Test initiation testing :-
 - In this testing PM concentrate on requirement of project scope of project.
- 2) Test initiation testing :-
 - In this testing PM concentrate on requirement of project scope of project.

Risk involve in the project

④ Requirement of project :-

- It is called domain of the project
- It include - Banking domain, Telecome-domain, E-commerce domain, Healthcare domain, Insurance domain.

→ Scope of Project

- Scope of project means selection of test strategy to test functionality of modules include in the project
- Ex - Suppose a amazon project is there then those scenario we get select which are related to the functionality of the project
- Risk involve in the project

→ Risk occur in the project are -

① Less resources -

- If there are less number of people involve in the project then each person would get extra work to do.

② less test data -

- If there is less or no test data then we have to do exploratory testing

③ Lack of knowledge :-

- If new person is involved in team then knowledge transfer is required for him *

4) Test plan :-

- It is a project level document which is prepared by the TL.
- Test plan document contains we are going to decide release date of our project
- The mainly concentrate on
 - ① Job allocation
 - ② Resource allocation
 - ③ Estimating
- Job allocation in terms of what to test how to test who to test and when we test.

**

① Job allocation -

- Job scope of project scenarios get selected
- base upon scope of project jobs are get allocated
- Jobs means which test will get we are get selected.

② Resource allocation -

- Resource allocation are are the people
- In job allocation who will do test is

get decide
⑩ Estimation -
→ Estimation means start and end date of
the project.

*//

3) Test case scenarios -

- Test scenario is nothing but what to test on the basis of one test scenario we can prepare multiple test cases
- The scenario are prepared by the tester on the basis of requirement

4) Test case ~~design~~ - Design -

- Here test case is nothing but navigational functionality
- Test case is how to test any particular requirement or scenarios
- On the basis of one test case we cannot prepare multiple test scenarios.

5) Test-case Execution.

- After the completion of test case designing the engineer execute the test cases to validate the functionality
- Tester is going to execute test cases.
- On while executing we found defect, then

we assign it to developer. After solving this direct developer send us corrected system.

6) Regression Testing -

- After compilation of test execution we are going to perform regression testing.
- Under the regression testing we are going to cover main functionality of our application.
- When we get corrected system then we do regression system to check whether failed test cases will not impact any other functionality of our application.

7) Test summary Report :-

- After compilation of testing test engineers is responsible to prepare test summary report.
- Test summary report contain summary of all test activity.
- It is prepared by test engineer.
- Test engineer send report on daily basis.
- Test summary report contains:
 - 1) How many test cases are executed.
 - 2) How many test cases are passed failed not run.
 - 3) How many defect we have found.
 - 4) How many test cases are blocked.

→ Format of test summary report.

Hello: XXXX

Today I have executed test cases on Redbus ticket Booking functionality module & below is the test status.

• Test summary report

Date:	11/10/21
Test cases execution	
on requirement	
>> 225 Redbus Ticket Booking Functionality	

Total	Test cases	50
Pass	Test cases	15
Fail	Test cases	10
Blocked	Test cases	5
Not Run		20
Defect		10

Please let me know if you have any question.

Thanks & Regards,
XXXX XXXX

8) Test closure report -

- Team Lead (TL) is responsible to prepare test closure report.
- Test closure report checks whether all processes are correct or not.
- To make test closure report TL uses dashboard
- Test closure report it is a form of report.
- Test closure report gives a summary of all test conducted during the testing.
- Test end of sprint or end of project.
- Ex -
 - Test ~~total~~ cases count = 100
 - defect found = 70
 - Test cases run = 50 (Pass)
 - Fail test cases = 20
 - close defect = 50
 - open defect = 20
 - Not run test cases = 5
- This document that gives a summary of all test conducted during the software development life cycle.

Total	Pass	Fail	Not Run	Defect
500	300	15	50	15

* Test plan -

→ Test plan is a project level document which prepares by TL
 → In that we are going to decide release date of our project
~~As per~~ During this test plan, they concentrate on

v) Job allocation → from terms that what to test & how to test

vi) Resource allocation → (what type of resource use can allot for that respective project)

→ a) Automation Resources

→ b) Manual Resources
 → c) who has knowledge about manual & database

vii) Estimation - → decide start and end date of project)
 i.e. how much time it will take to complete.

The input to prepare test plan are:-

- 1) Development document i.e. SRS document
- 2) TRM document < what are the issue you are going to test>
- 3) The main objective of test plan is to decide the start date and end date of testing activity

→

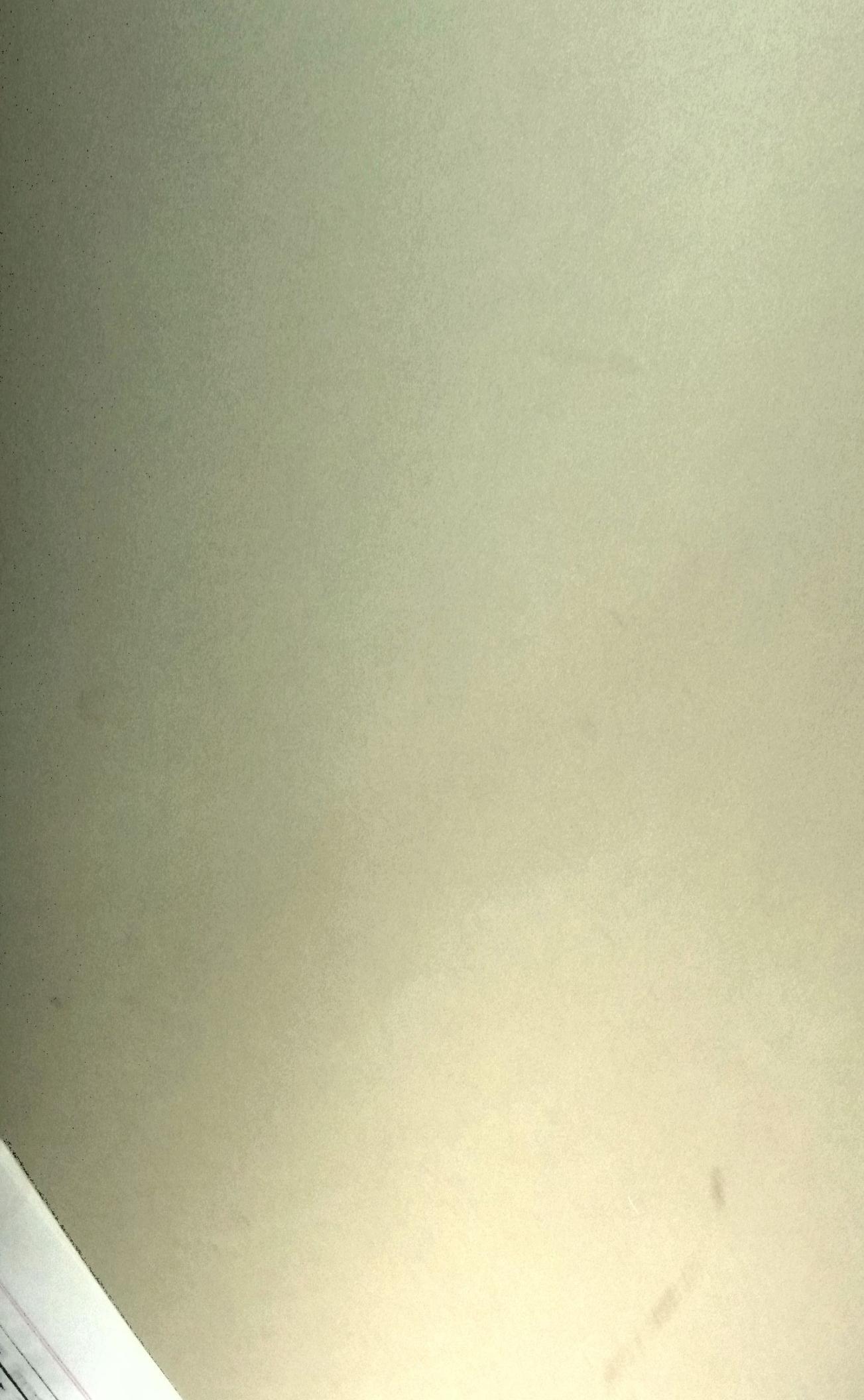
The process include to prepare a test plan is:

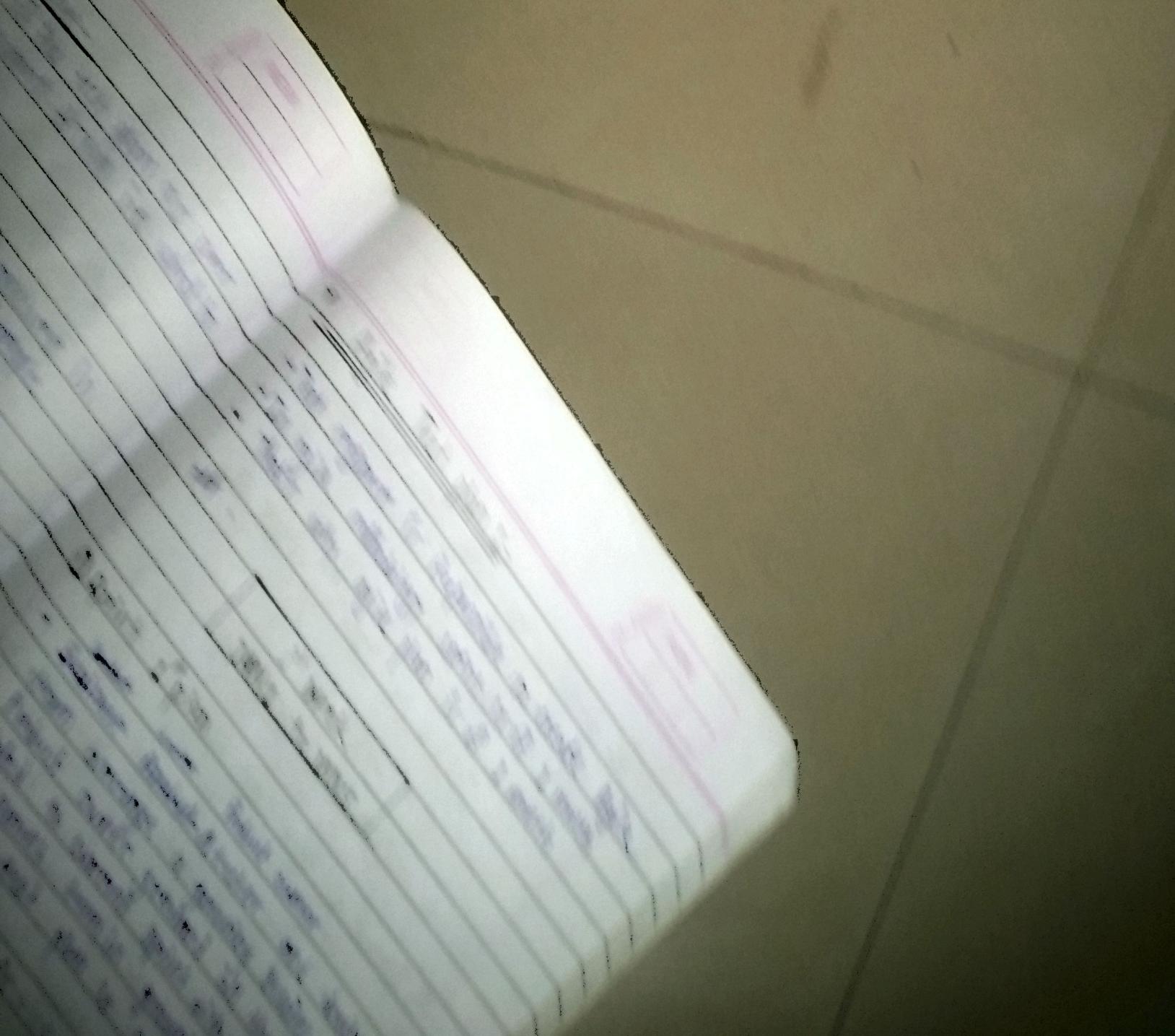
- ① Test team formation
- ② Risk involve in the project
- ③ Prepare test plan
- ④ Review test plan & Finalize the test plan

→ Test planning

Input	Process	Output
Development Document	① Team Formation ② Identify critical risk	System Test Plan (STP)
TRM	③ Prepare test plan ④ Review test plan	

- Test plan is very important document because it depends on the customer process
- It will decide the release date of the project





① BRT Base coverage -

→ checking the of the test plan as per development document & TRM i.e. what to test?

② Risk base coverage -

→ Risk and their solution occurs in project ex. search / export example

③ TRM based coverage -

→ It checks which is mention in test plan is as per TRM or not i.e. How to test?

→ After that project manager give permission to make finalized test plan.

* Agile Test plan :-

- Test engineer is responsible to create Agile
- In agile methodology, sprint is of 1 month
- That's why, agile plan is of 1 month

~~1st~~

1 st Week
JAN 1 to JAN 5

① Sprint 1st plan

Product owner - Product owner.

- Business Analyst, tester and development team arrange a grooming session
- Product owner groomed all the Requirements related to current sprint with tester team of development team in grooming session
- Then test plan is created

② Story Analysis - (similar to SRS doc)

- Review user story & question - answer session is held for doubts
- Communication done betw testing team, developing team and product owner.
- This communication done through Q-messenger

③ Test case design -

- On the basis of customer requirements