Please write a short outline of how you test in an agile framework Include general testing concepts and the process you think should be followed by the QA team-- When should testcases be written, and who should see them?

How you perform regression testing Include how you execute testcases and report test results-- How do you prioritise testcases? How do you decide what testcases to write? What should be included?

Agile Framework: A set of principles with a focus on delivering small, incremental pieces of working software. Agile is an iterative and incremental approach to software development that delivers small, functional pieces of software quickly.

Key Benefits are

○ Faster delivery of features to clients.

○ Easy to accommodate changes or updates based on client feedback.

○ Promotes effective communication between developers, QA, clients, and product owners.

Components of the Framework:

Scrum, Pre-Sprint Planning, Sprint Planning, Daily Stand-ups, Sprints, Testing in Sprints, Sprint review and Retrospection.

Scrum Terminologies includes

Epic, Feature, User story

Artifacts:

Product backlog, Sprint backlog and Burndown charts.

Testing Concepts includes: Best Practices, Communication, Estimations, Prioritization and Impact Analysis, Automation Regression suite and Test Reporting

* Best Practices to write and execute test in a time-boxed agile sprint with deadlines and effective estimation techniques
* Communicate with the team is the key to align testing strategies, plans and execution with sprint goals.
* Continuously adapt the testing strategy to meet deadlines without compromising quality.
* Understanding key terminologies, ceremonies, and estimation techniques enhances the effectiveness of Agile practices in software development.
* Prioritize testing activities by focusing on high-risk and critical areas and utilizing test automation to reduce manual effort and provide faster feedback.
* Test Scoping and mapping for the user stories for providing the test coverage that includes the data variations and the business process variations
* Initial cycle can be a manual testing cycle for a change that is deployed and then eventually a regression suite should be created that has to be converted to automation.
* Leverage the concept of CI CD – Continuous Integration and Continuous Development

Continuous integration (CI) is a popular practice in agile methodology. CI means the team should keep the system fully integrated at all times. Integration can happen many times a day. Here the point is that CI detects enough bugs to be worth the cost Be able to deliver a product version suitable for release at any moment Continuous integration aims to lessen the pain of integration by increasing its frequency

* Use of a version control tool GitHub, an automated build and product release process
* Instrumentation of the build process to trigger unit and acceptance tests "every time any change is published to version control"
* Test Reports includes the status of the daily test execution or the entire sprints.
* Metrics includes Test Coverage, Test Execution Pass Percentage, Defect Trend Ratio