2.What is Test Driven Development (TDD)and how much does it help add business value?

TDD is an evolutionary approach to development which combines test-first development where you write a test before you write just enough production code to fulfill that test and then refactor the code to pass the test.This is more of of a pragmatic approach.It suits the agile manifesto.

- Business requirements are written as several test cases and software or product is improved even before its release

Points that add business value in Test Driven Development:

- Debugging time is reduced
- Mistakes are less when compared to traditional SDLC approach
- Software can be made bug free in development phase itself
- Hence reducing time in testing creates business value

Eg TDD approach: Write a Run>Refactor>Done	Eg Traditional approach:Write a test>Run>Done

3.What is CI? What is the effect of CI in schedule?

- Continuous Integration (CI) is a development practice where developers integrate code into a shared repository frequently, preferably several times a day. Each integration can then be verified by an automated build and automated tests. While automated testing is not strictly part of CI it is typically implied.
- One of the key benefits of integrating regularly is that errors can be detected quickly and locate them more easily. As each change introduced is typically small, noticing the specific change that introduced a defect can be done quickly.

Some activities practiced in Continuous integration are:

- Committing code frequently
- Categorizing developer tests
- Using a dedicated integration build machine
- Using continuous feedback mechanisms
- Staging builds
- Testing, builds and deployment are automated
- Tests are done in cloned production environment
- Builds are faster

Effect of continuous integration in schedule:

- Continuous Deployments - Continuous Development is the Key Factor in scheduling
- And the overall quality of the end product or software is improved

4.What is configuration management?

- A set of management disciplines within a software engineering process to develop a baseline
- Software Configuration Management encompasses the disciplines and techniques of initiating, evaluating and controlling change to software products during and after a software project
- Version control is a part of configuration management where the code is versioned and shared in a common repository

a.Name some sample tools available for version control?

- IBM Rational team concert
- IBM Configuration management version management
- Razor
- VSS – Visual source safe
- PowerShell DSC
- Puppet
- CFengine
- Ansible

b.How does version control help in agile projects?

- Version control is useful for collaborative working and provides source for quality source code development(Being collaborative is an agile principle)
- Version control is not merely "good practice" but an enabler of a number of Agile practices, such as continuous integration
- Version control is helpful in maintaining the business contingency as if any natural calamity occurs the previous version of the code can be retrieved from the repository and delay will not be there in the product delivery

5.Describe Automated Testing vs Deployment Automation

- Automated Testing is one activity which automates testing
- Deployment Automation is set of many activities and infrastructure
- Both help the organization to save the cost

Automated Testing	Deployment Automation
Automated testing refers to testing the code or software using a error tracking software tool	Deployment Automation refers to automate all the activities from '*release to retire*' in a software development lifecycle and automation of *infrastructure* which supports
Reduces time in testing than manual testing by coders	Fastens the build deployment
Helps in continuous delivery of the product Eg tools:Selenium,Watir	Helps in the Continous integration

1.What qualities should a good Agile tester have?

Agile testers should poses some different qualities than traditional testers to suit agile because agile is a mind set!

Few qualities of agile testers are:

- Agile testers need to adaptive in the regularly changing environment
- They need to be flexible
- They need be positive and solution-oriented with team members and stakeholders
- Display critical, quality-oriented, sceptical and thinking about the product
- Actively acquire information from stakeholders (rather than relying entirely on written specifications)
- Accurately evaluate and report test results, test progress, and product quality
- Work effectively to define testable user stories, especially acceptance criteria, with customer representatives and stakeholders
- Collaborate within the team, working in pairs with programmers and other team members
- Respond to change quickly, including changing, adding, or improving test cases
- Plan and organize their own work