1. How do you evaluate the performance of a project in agile?

We evaluate the performance of a project in agile using some performance metrics.

The commonly used agile-performance metrics are:

- Velocity
- Hit Rate
- Work Remaining on Tasks
- Project Measures

Velocity:

- V=(Units of efforts completed)/(sprint)
- Time taken fort each task is defined by velocity.
- Velocity is used to manage the release planning velocity is measured at the end of each time box

Hit Rate:

This measures the actual work allocated to a time box.If the development team allocates 50 tasks to a time box and completes only 30 tasks then the hit rate is (30/50)x100=60%

Work Remaining on Tasks:

Development team creates burndown charts and estimates work remaining to adjust the workflow to complete the pending tasks

Project Measures:

These three are used to measure the agile project:

- Cost Performance Index (CPI):The Cost Performance Index (CPI) gives a measure of efficiency. It is calculated by dividing Earned Value by the Actual Cost.
- Schedule Performance Index (SPI):The Schedule Performance Index gives the information about the schedule performance of the project. It is the efficiency of the time utilized on the project.
- Earned Business Value (EBV):It defines how many story points actually created the business value

2. Compare traditional monitoring & control with agile monitoring & control with respect to metrics generation?

Traditional Monitoring and control	Agile monitoring & control
CPI , SPI and Earned value are used in performance measure in monitoring &control phase	CPI , SPI and Earned Business value are used in performance measure in monitoring &control phase
Project can be considered as failure if desired CPI and SPI are not met	Project will not be considered as failure if desired CPI and SPI are not met but uses earned business value to determine the success of the project
Business value of story points is not measured	Business value of story points is calculated and story points with zero business value are considered as chores
Ideal condition for a successful project is CPI=SPI=1	Project can be a success if some of the story points create a business value
Release planning is done in sequence	Release planning is done in sprints

3. With a total project budget of $ 175,000, and having completed one out of our Iterations, we have this product backlog and these actuals?

Expected Percent Complete equates to the number of completed iterations divided by the number of planned iterations (in our example, after Iteration 1 we should be at 25% complete;

- Planned Value for a given iteration is the Expected Percent Complete * Total Budget (25% of $ 175,000 = $ 43,750);
- Actual Percent Complete equates to the total number of storypoints completed/ Total number of storypoints planned (40/200 = 20% complete);
- Earned Value = Actual Percent Complete *Total Budget (20% of $ 175,000) = $ 35,000.