**Q1: What is the Feasibility Study of the SDLC model & why is this important?**

Ans: A feasibility study is an important step in the Software Development Life Cycle that helps determine if a proposed software project is viable, practical, and cost-effective. It is typically conducted at the beginning of the SDLC before significant resources are invested in the project.

**Q2: Write 5 advantages of Agile methodology.**

Ans: # (a) Satisfied customers

By involving customers in the development process, Agile teams keep them in the loop and show that they value their opinion. Stakeholders want to be engaged throughout the project life cycle so they can offer feedback and ensure that the final product will be suited to their needs. These tailor-made deliverables will likely improve the overall user experience and boost customer retention.

# (b) Improved quality

Agile methodologies use an iterative approach to project management, meaning processes are improved upon each time an interval is repeated. This consistent focus on improvement and quality control is one of the core principles of Agile, and it helps to create superior products.

# (c) Adaptability

The central theme of Agile is flexibility. Agile teams are responsive to change, even at the last minute, and can adapt to it without much disruption. Project deliverables are not set in stone, so teams can easily reassess their plans and adjust their priorities to align with updated goals. Being adaptable means teams can deliver consistently and manage clients’ changing requirements effectively.

# (d) Predictability

Agile teams work in short time periods, sometimes referred to as sprints. These fixed durations (e.g., two weeks) make it easier for project managers to measure team performance and assign resources accordingly. It is also easier to predict costs for shorter time periods than for a long-term project, simplifying the estimation process.

# (e) Reduced risk:

Developers regularly assess progress during sprints, meaning they have better visibility into the project and can spot potential obstacles quickly. These minor issues can be tackled before they escalate, creating an effective risk mitigation process and giving the project a greater chance of success.

**Q3: Write short notes on SDLC model phase.**

Ans: SDLC is a process followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development process.