Q1. Describe the Software development Life Cycle identifying where DevOps fit in?
Q2. What are the DevOps best practices?
Q3. What is the difference between a DevOps engineer and SRE engineer?

SOLUTION
Q1. Software Development Life Cycle (SDLC) is a process used by the software industry to design, develop and test high quality softwares. The SDLC aims to produce high-quality software that meets or exceeds customer expectations, reaches completion within time and cost estimates.
A typical Software Development Life Cycle consists of the following stages

- Planning and Requirement Analysis
- Defining Requirements
- Designing the Product Architecture
- Building or Developing the Product
- Testing the Product

What is DevOps in SDLC?
The DevOps methodology is a relative newcomer to the SDLC scene. It emerged from two trends: the application of Agile and Lean practices to operations work, and the general shift in business toward seeing the value of collaboration between development and operations staff at all stages of the SDLC process.In simple words, DevOps means a software development method which stresses on communication, collaboration and cooperation between software developers and other IT professionals,collaboration across these different roles delivers many benefits.
Technical benefits:

- Continuous software delivery
- Less complex problems to fix
- Faster resolution of problems

Business benefits:

- Faster delivery of features
- More stable operating environments
- More time available to add value (rather than fix/maintain)

Q2. What are the DevOps best practices?
DevOps best practices include agile project management, shifting left with CI/CD, automation, monitoring, observability, and continuous feedback.

Q3. What is the difference between a DevOps engineer and SRE engineer?

What Is DevOps?
DevOps is an approach to software development that follows either lean or agile principles. The primary focus of DevOps is to enable continuous delivery with a frequent release rate and an automated approach to application development. It achieves this by fostering a collaborative working environment.

What Is (SRE)?
SRE is a discipline that incorporates the various aspects of software development and applies it to issues and tasks in IT operations specifically. The main objective of SRE is to develop a highly reliable and ultra-scalable software application or system.

In a nutshell, DevOps Engineers are ops-focused engineers who solve development pipeline problems. Site Reliability Engineers are development-focused engineers who solve operational/scale/reliability problems.

DevOps aims to bridge the gap between development and operations by culturally aligning their tasks, objectives and initiatives, SRE places the development team at the head of the entire initiative.