

**PART 1**

1. What is the difference between software engineering and system engineering?
2. What would be the correct thing to do in the following situation?

“Imagine that you were recently hired as a software engineer to a company that specializes in aircraft navigation control software. While orientating yourselves to the company’s work practices, you observe that they in fact do not conduct a few tests that they should in order to comply with the relevant safety standard. When you inquire about this from the project manager, he dismisses it saying that those tests are unnecessary (and takes an unreasonably long time to conduct, as well as being superfluous) and that they have managed with the other tests for so long, without any problems.”

3. What are critical systems? Explain the different types of critical systems.

**Activity 01**

What are the reasons for Software Failure? Find some real-world examples and explain it further.

**Activity 02**

What are the key challenges of Software Engineering?

