1. ” Software engineering is part of system engineering process”. Do you agree with the above statement? Justify your answer.

Here it plays both roles that is YES and NO

It is merely part of the system, but often shapes architecture; drives much of its complexity and emergent behavior; strains its verification; and drives much of the cost and schedule of its development…

1. What is software crisis? This is a term used in computer science for the difficulty in writing useful and efficient computer programs in the required time, with increase in the complexity of the software problems arise because existing methods were insufficient. For instance, the production of OS/360 was produced with the system /360 mainframe. Its production started in the 1960 and was planned that by 1966 it would be produced.

3.What are the professional responsibilities of a software engineer?

-They fall into 4 main categories i.e., they loosely come together in a process called the “waterfall model”

i. research and analysis. A professional software engineer has the role of researching and analyzing for a good amount of time especially on solutions and programmatic solutions and technical documentation.

ii. System design. Here we have 2 types of engineers i.e. the back-end software engineer has to architect the technical underpinning that brings a designer’s solutions to life, while a front-end engineer focuses on the program. In fact here the back-end engineers are architecture of the algorithm. A software engineer demonstrating creativity when they design technical solutions; after all, this is what makes so many power techs proprietary.

iii. Implementation. A software engineer primary role is to implement efficient code into the overall product infrastructure. Most software developers work in teams thus only focus on building specific front-end or even back-end components of a certain product. Therefore, it is crucial to demonstrate an understanding of the implementation protocol as a key part of a software engineer’s job.

iv. Support. Products gone to the market are never complete thus calls for the presence of a software engineer. The software engineers provide updates, additional features for the product, also they correct bugs, implement fix, test fix. But this process here is generally based as the support and a software engineer works in tandem with their QA team to continuously support their product throughout the software development life cycle (SDLC).

4.” Components-based software engineering allows faster delivery”. State whether this statement is true or false. Justify your answer.

YES.

Because due to using previously tested components they produce more reliable system at a faster rate.