CompS350F SoftEngg Tutorial 1 exercise questions (textbook chap. 1)

**1.1 Search the literature and find four other definitions of software engineering in addition to the one given in this chapter. Discuss the similarities and differences between these definitions.**

Ans:  
1. Research design develop and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, noisiness scientific and general computing applications.

2. The systematic application of scientific and technological knowledge , methods, and experience to the design, implementation, testing and documentation of software;

3. the application of a systematic, disciplined quantifiable approach to the development, operation, and maintenance of software.

4. an engineering discipline that is concerned with all aspects of software production

5. and “the establishment and use of sound engineering principles in order to economically obtain software that is reliable and works efficiently on real machines.

**Q1: Which one from the 5 definitions of Software Engineering is based on our textbook?**

Ans: Software Engineering is focused on the research, education and application of engineering processes and methods to significantly increase software productivity and software quality while reducing software costs and time to market.

**Q2: Which one from the 5 definitions of Software Engineering is based on IEEE**? Ans: 3

**Q3: Which one from the 5 definitions of Software Engineering is based on Sommerville?**

Ans: An Engineering discipline that is concerned with all aspects of software production from the early stages of system specification through to maintaining the system after it has gone to use.

**1.2** Describe in a brief article the functions of software development process, software quality assurance, software project management, and software configuration management. Discuss how these work together during the software development life cycle. Discuss how they improve software PQCT.

**Ans:  
 P => Use appropriate process and method in productivity**

**Q => Use appropriate design and testing quality assurance**

**C => Use appropriate budget management in each life cycle**