

CS3332 Software Engineering
Midterm Exam
100 minutes

1. (15 pts)
 - a. What is software engineering? Present your opinion about the necessity and importance of software engineering especially in software development today.
2. (10 pts) Present at least three erroneous beliefs about software or the process that is used to build it and the corresponding truths in reality.
3. (30 pts)

What is a software process? Make a comparison between two generic software process model that you know. (15 pts)

Propose the most relevant software process model that might be used for managing the development of the following systems, **and give reasons for your answer.** (15pts)

 - a) An autonomous landing system for a deep-space exploration probe.
 - b) A nationwide unified healthcare data exchange system connecting thousands of private clinics and public hospitals with different legacy infrastructures.
 - c) A boutique social media platform tailored for global luxury watch collectors.
4. (15 pts) Present in detail two of the following key tenets of XP and a **explain why each is important:**
 - a. Pair Programming
 - b. Constant Unit Testing
 - c. Short Iterative Cycles
 - d. Stories as Requirements
 - e. The 40 Hour Week
 - f. Refactoring
5. (30 pts) You belong to a RE (Requirement Engineering) teams for an online COVID-19 health declaration application. Write for the system:
 - a. At least three user requirements
 - b. Choose one among them to break them down to system requirements, describe these system requirements.
 - c. Two measurable non-functional requirements.