Full Name: …………………………..………………… Student ID: …………..……..

Software Engineering Quiz 1

Q1. (48 pts) Provide the information below by stating clearly the conditions required in order to use or avoid a model and give an example software project that could benefit from the model.

Software Development Process Model	Use this model when….	Do not use this model when….	Example
Waterfall	*-Requirements are well defined* *-Documentation is highly expected*	*-Working program is required quickly* *-Requirements are at risk of changing*	*An operating system*
Incremental	*-Working core product is required quickly* *-Increment can be planned to manage technical risks*	*-Planning the increments is difficult* *-Additional functionality on system architecture is possible* *-Expected cost is strictly set*	*A software for self-driving car*
Spiral	*-Project is at high risk* *-Requirements are complex* *-Maintenance is highly expected after the deployment*	*-There is lack of skilled staff for risk analysis* *-Step by step commitment on contract is needed*	*An online game which needs maintenance and debugging often*

Agile	-Team includes all the people necessary to finish the project -There are small number of senior developers -Customer interaction is possible whenever needed	-Documentation is highly expected -Customer interaction is not possible -Takes long time to get a feedback	A software for records, transactions and communications inside a commercial company

Q2. (52 pts) Please draw the **use case diagram** for the software described below.

The software is a remote learning program. **Students** can register for the courses, see the list of courses they are registered to, ask questions to the instructors, see the answers and access the course materials which are provided by **content providers**. **Instructors** provide exams, which can be a take-home type exam or a real-time-session exam. Take home exams also require downloading the questions and then uploading the answers. After the real-time session exam finishes, the students may see the answers if they wish to.

Remote Learning Program