Software Engineering II

Aspect Oriented Programming   **Tutorial 5**

Question 1

Explain the following code in detail by commenting each line

```
public aspect EL {
    pointcut scope(): within(uk.ac.liv.csc.comp319.common.*);

    pointcut pr():
        get(* System.out) ||
        get(* System.err) ||
        call(* Throwable+.printStackTrace());

    declare warning : scope() && pr(): "";
}
```

Question 2   What is the different between a pointcut and a joinpoint?

Question 3   Download the aspect source code examples from tinyurl.com/comp319.
Look at the DobValidate.aj
Explain the purpose of the around and proceed keywords?

Question 4   What are the benefits/drawbacks in applying AOP for the examples in Q1 and Q3

Question 5   Define an Aspect for the following:
Log all setters (not method setters) for any class which is in the package comp.liv319.
What options are available for the pointcut position?

Question 6   Read and review the paper by Greenwood and Blair on autonomic systems.
a) Why did they think AOP applied to autonomics?
b) What are the alternatives they outlined?