

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 Canvas. AopExamples.zip

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 autonomies?
- b)** What are the alternatives they outlined?