

### **TRUE or FALSE QUESTIONS:**

1. (F) Inheritance is used to model HAS-A relationships.
2. (T) If you only have private constructors defined for your class, it can not be subclassed.
3. (F) Sequence diagrams are normally used to model a use case's happy day scenario.
4. (F) It is possible in a java interface (pre Java 8), for there to be a mix of implemented and unimplemented methods.
5. (T) There are 3 types of relationships between classes in UML: association, aggregation and composition.
6. (T) As a JavaFX application developer, you are responsible to initialise an instance of the Stage class for a GUI you are designing/developing.
7. (T) When the constructor of a subclass is invoked (when the new operator is used). all static and instance variables in the superclass get initialised before all static and instance variables in the subclass.
8. (T) In a JavaEX application, the top-level container is always a Stage. You can place a Scene on a Stage to define your GUI content.
9. (F) In dynamic binding, the method that gets executed is determined at compile time not at runtime.
10. (F) Class diagrams model how event can change the state of an object class over its lifetime.

Which statements are true about Class Diagrams?

- a. From the conceptual perspective, associations represent relationships between classes.
- b. UML can be used only to model Object-oriented systems.
- c. Multiplicities are normally 0, 1, \*. It does not support for a range like 2-4.
- d. Within the specification perspective, associations represent methods.
- e. From the conceptual perspective, associations that have no arrow heads mean that they are non-directional
- f. From specification perspective, association lines with arrows indicate navigability. The source class has responsibility of 'knowing' the target class but not the other way round.