Full Name: _____________________________

Please answer each question **only within the space provided for each question.**
All questions have equal points.

1. What’s wrong with creating long methods? Explain.

2. “The use of Runtime Type Identification (RTTI) is a clear sign of violating OCP.” State if you agree or disagree with that statement and explain with an example.
3. What’s a canary test? Why create them?

4. What’s the benefit offered by Composite pattern? What are the consequences of using it (relate your answers to both parts to the design principles).

5. An object uses heavy weight resources that are expensive to create. You don’t want to create them unless actually needed. However, you want the creation of the resources to be seamless to the user of your object. What pattern will you use in this case? Explain.
6. How can you tell the difference between factory method and abstract factory?

7. What design principles are used in the implementation of the iterator pattern? What other design patterns are often used along side when implementing the iterator pattern?
8. What feature of a language makes execute around method pattern possible and elegant? Give an example of the pattern usage.

9. When evaluating the quality of a design, what does opacity mean? Mention some ways to avoid or at least alleviate creating designs with such problems.
10. A team wants you to come in and evaluate the quality of their design and code. How would you proceed to do that?
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