

1. Outline what is meant by the term **design pattern** and give TWO (2) advantages and TWO (2) disadvantages associated with their use. (6)
2. Explain the term **polymorphism** and explain why it is of importance to the operation of many design patterns. (4)
3. Outline the role for which a **Flyweight** design pattern is suited, and give ONE (1) advantage and ONE (1) disadvantage associated with adopting the pattern. (4)
4. Design goals are often contradictory, and it is impossible to optimise for all possible goals at once. Explain what is meant by this statement, and give your view as to its validity. (6)
5. Outline the three main families of design patterns discussed in the module, and given an example of a pattern that belongs to each family. (6)
6. Explain the design pattern most commonly used to decouple business logic from user interactions, and explain why this is a useful approach to software development. (4)



