**Question 1**

**[1 point]** Describe the two examples for structuring CSS as mentioned in the reading. What might be the advantages? What might be the disadvantages?

1. Object Oriented CSS: Separate structure from skin Separating content from the container
   1. Advantage: Flexible. Allows you to pick more appropriate tags. Explicit selectors allows for faster design.
   2. Disadvantage: Increases file size.
2. Scalable and Modular Architecture for CSS:
   1. Advantage: Flexible. Relies on classes not elements. Use appropriate markup without worrying about existing styles.
   2. Disadvantage: Increases page size. Less readable class names.

## Question 2

**[1 point]** According to the reading, what is the favored approach for selectors? Why?

1. Keep selectors short: minimizes specificity allowing for better inheritance and portability, improving efficiency.
2. Favor classes: they render quickly and allow for styles to be reused.

## Question 3

**[1 point]** Describe at least three techniques in detail for better performance of web applications.

1. Reuse code: any repeating styles or interface patterns should be combined.
2. Minify and compress files: minify and compress HTML, CSS, JS, and image files.
3. Reduce HTTP Requests: combine like files, image sprites (multiple background combined into one and adjusted using the background-position property.
4. Cache common files: set the expires header for caching files within the .htaccess file

## Question 4

**[1 point]** Explain what is a Data URI?

Data URI (Uniform Resource Identifier): a scheme to include data in line in a web page as if it were an external source. The technique allows elements like images to be fetched in a single HTTP request.

## Question 5

**[1 points]** Explain the different positioning properties. (static, relative, absolute, fixed, and z-index)

* Static: default, positioned as intended.
* Relative: accepts box offset properties top, right, bottom, and left; remains in the normal flow of the page.
* Absolute: accepts box offset properties, removed from the normal flow of document, positioned directly in relation to contained parent.
* Fixed: same as absolute, position is relative to the browser viewport.
* Z-Index: positions elements on top of one another, the element with the highest z-index value will appear on the top.