1.The CSS cascade is the process the browser uses to decide which style rule applies when multiple rules target the same element.priority and specificity applies

.Order of Priority:

Inline styles

Internal styles

External styles

Browser default

2.Specificity is a ranking system that determines which CSS rule takes priority when multiple rules apply.

Specificity hierarchy (lowest → highest):

Inline

Id selector

Class selector

Element

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
        #text
        {
            color:rgb(245, 2, 2);
        }
        .para {
            color:blueviolet;

        }
    p {

      color:orange;

    }


  </style>


</head>

<body>

    <p id="text" class="para" style="color: blue;">This is my paragraph</p>

  </div>

  </div>

</body>

</html>
```

This above styling specificity based inline style is displayed if remove inline style then id selctor is active.prioirty based it acts.

3. external css

A separate .css file linked with the HTML using the <link rel=””> tag.and this used for all styles for webpages same css file this is easily to maintain.it reusability and used for other styling process

Internal css

Inside the html file in head section using <style> tag inside the tag we write the styling process without using extra file.It is static web pages uses.If you other page styling you write separate styling.It not use for big projects

Inline css

Directly inside the HTML element using the style attribute.If you edit then you went to search separate element then changing the style. This is not easy to use.Not scalability.

4.I have doubt on this ques sir.

5. z-index only works on positioned elements. If an element is position: static.It doesn’t create a stacking context and thus ignores z-index.

. 7. Relative (position: relative)Moves the element relative to its original position in the normal flow

```
.box {
  position: relative;
  top: 20px;
  left: 10px;
}
```

Absolute (position: absolute) Positioned relative to the nearest ancestor that is positioned.

```
.parent {
  position: relative;
}
.child {
  position: absolute;
  top: 0;
  left: 0;
}
```

Fixed (position: fixed)Fixed values once you give the values of fixed it will be fixed to screen.

```
nav {
  position: fixed;
  top: 0;
  width: 100%;
}
```

Sticky (position: sticky)we have the measurements of the heights and weight when the fixed elements enable on the screen.

```
header {
  position: sticky;
  top: 0;
}
```

8. When you have nested positioned elements, their placement depends on the positioning context created by their parent elements.

```
.parent {
  position: relative;
  width: 200px;
  height: 200px;
  background: lightblue;
}
.child {
  position: absolute;
  top: 10px;
  left: 10px
}
```

9. Use rgba() for the overlay color, where the last value is the alpha transparency for display bg image. background-color: rgba(0, 0, 0, 0.5).

11.px-Fixed layout where exact pixels matter 1px = 1 screen pixel.

em-Relative to the font size of the parent element.

rem-Relative to the root <html> font size.

```
 12. .btn {
  background-color:blue
  color: white;
  padding: 10px;
  border: none;
  transition-property: background-color, color;
  transition-duration: 0.3s;
  transition-timing-function: ease;
}


.btn:hover {
  background-color: greem;
color:black;
}
13. button {
  width: 200px;
  height: 50px;
  border-radius: 25px; /* pill-shaped */
  background-color: blue;
  color: white;
}
```

Border-radius is affect the real shapes so we used it for our conveinince. border-radius: 10px 30px 0 50px;