1. Define HTML, CSS and JAVASCRIPT. (3)

**Html-Hyper Text Markup language. Describes the structure of a webpage.**

**CSS – Cascading stylesheets. Used to specifying the presentation and styling of a document written in html**

**Javascript- is a scripting language that allows you to implement complex features on a webpage.**

1. What are semantic elements? (1)

**Used to define the meaning of content they contain.**

1. When do you use the address tag? (1)

**Defines contact information of the author or owner of a webpage**

1. When should we use a table tag? (1)

**Tabular data**

1. Can you tell me the difference between the blockquote tag and the q tag? (2)

**Blockquote – multiline quotations**

**q – short inline quotations**

6. In HTML name the three types of lists? (3)

1. **Ordered list**
2. **Unordered list**
3. **Description list**
4. The div and span tag are non semantic HTML elements. Can you explain the difference between those two elements? (2)

**Div – block level element.group elements for organization and styling.**

**Span – inline container for organization and styling.**

1. Explain the purpose of the ‘alt’ attribute in HTML image tags. (1)

**An alternative text for an image, if the image cannot be displayed**

9. Explain the difference between class and id attributes in HTML and when to use them. (2)

**ID -Identifier that must be unique in the whole document. Selects a specific element with that ID. Provides a unique identifier.**

**Class -Selects all elements with that class. Group elements together and apply consistent styles to all of them. Group styling and selection.**

10. What is the difference between inline, inline-block, and block elements? (3)

**Inline -Don’t have width and height. Don’t start on a new line, take up only the width that’s required. <span> , <a>**

**Inline-block –Do not start on a new line.Allows you to set width and height. <img>**

**block –Elements starts on a new line. Takes up full width available by default.Allows you to set width and height.**

11.What are the differences between CSS grid layout and CSS flexbox? When would you use each? (4)

**Flexbox 1 dimensional layout system for simpler layouts where elements are aligned in a row or column.**

**Grid – 2 dimensional layout system for complex grid-based layouts.It works horizontally and vertically allowing you to control rows and columns with precision.**

12. There is animation and transition in CSS. Can you describe the difference?(2)

**Transition provide a change from one state to another, while animations can set multiple points of transition upon different keyframes**

13.What are pseudo elements and pseudo classes give an example of each? (4)

**Pseudo-elements –a keyword added to a selector that allows styling specific part of an element. ::after, ::before**

**Pseudo-classes Describes the characteristics of elements, such as dynamic states(behavior). :hover, :focus, :checked, :active, :link, :visited, :first-child**

**,:nth-child**

14. There is a property called box shadow. Can you tell me the syntax of it? (1)

**box-shadow: horizontal vertical blur spread**

15.What is the importance of responsive web design, and how do you implement it? (2)

**Ensure that a website is easy to navigate and readable on different screen sizes, from large desktop monitors to smallest mobile phones.**

**Create flexible layouts using media queries.**

16.Can you explain CSS specificity and how it works? (2)

**Specificity is used to determined which set of styles to apply.**

1. **Inline style**
2. **ID**
3. **Class**
4. **Selectors**

17. How would you implement a custom font on a website? (1)

**@font face , then apply font-family property to desired elements.**

18. Explain the difference between static, relative, absolute, and fixed positioning. (4)

**Static –Default value- Element follows the normal document flow.**

**Relative –Positioned relative to its normal position. Other elements are not affected.**

**Absolute –Positioning causes the element to disappear from its original position and repositioned.**

**Fixed –Positioning freezes the block in place, so when the page is scrolled, the fixed element remains in its position and does not scroll with the page.**

19.Which selector can be used to apply a style to every element on a page? (1)

**\*{**

**} the universal / general selector**

20.Can you mention at least three css units? (3)

**px, %, em, rem, cm, vh, vw**

21. Name at least 4 data types that exist in JavaScript? (4)

1. **Number**
2. **String**
3. **Boolean**
4. **Object**
5. **Array**
6. **Undefined**
7. **null**

22. How do you define variables in Javascript? (1)

**Variables are containers for storing values**

23.Can you differentiate between var, let and const? (3)

**var –oldest keyword to declare variables. Can be either function or globally scoped. Can be used before its declaration leading to unexpected outcomes.**

**let –Block level scoped- meaning a variable declared with let can only be accessed within the block it was defined in. Allows the variable to be reassigned.**

**const –Block scoped. Cannot be reassigned. Allows only the items or properties of objects and arrays to be modified**

24. How do you store names of 5 students in a single variable? (1)

**const studentNames = [name1,name2,name3,name4,name5]**

25.What are the differences between null and undefined in JavaScript? (2)

**null –a value assigned to a variable that signals “no value” or “no object”.**

**undefined –it’s the default value new variables take that means that a variable has been defined but it hasn’t been assigned any value yet.**

26.What is the difference between jQuery and Javascript? (2)

**Javascript is a scripting language.**

**jQuery is a library built in the Javascript language.**

27.What are functions in Javascript? (1)

**A block of code designed to perform a particular task**

28. The user inputs their age and I save it in a variable. Do I use const, let or var? (1)

**let**

29.Describe the ‘addEventListener’ method in JavaScript. (1)

**Used to attach an event handler to a particular element.**

30.What does DOM stand for? (1)

**Document Object Model**