1. In Html image map is an image with clickable coordinates which has details of the entire area of image linked to a single destination. It provides a convenient way of linking the different areas of an image without creating any kind of image files for the image.

Example:
```
<img src="workplace.jpg" usemap="#imageMap">

<map name="imageMap">
 <area shape="rect" coords="290,172,333,250" alt="cellPhone" href="phone.htm">
  <area shape="rect" coords="34,44,270,350" alt="PC" href="computer.htm">
  <area shape="circle" coords="337,300,44" alt="Mug" href="coffee.htm">
</map>
```

4. The benefits of CSS sprites are:
- It reduces the number of http requests which makes our websites load time faster
- As it combines with the various small images into one image so that it reduces loading time of the web page.

5. The limitations of CSS are:
- It can not request a web page directly.
- Any logical or arithmetic operation such as +, -, *, /, %, for, while, if-else can not perform
- It can not get any data from databases. That means CSS are unable to interact with databases

6.   **Pass By Value:** Into the function pass the actual value of the variable. For instance,
         int var = 10;
   Pass By Reference: Pass the exact passing location into the function. For example,
         int myAge=22;
         calculateAge(myAge)

7.   An Immediately Invoked Function in JavaScript is a way which executes functions immediately.

8. Strict mode in Javascript is a program or a function which prevents certain actions from being taken and helps to write secure Javascript code. Characteristic of the Javascript Strict Mode are:
- Eliminates some JavaScript silent errors by changing them to throw errors.
- strict mode code can sometimes be made to run faster than identical code.

9. A higher-order function is a function that accepts functions as parameters and/or returns a function.

10. some features of WordPress:
- Responsive Web design
- Stability and reliability
- Website security
- Infrastructure Backup

11. Plugin in wordpress is a piece of software that plugs into wordpress sites. List plugin that comes with WordPress are:
- Jetpack
- Akismet
- WooCommerce
- WpForms
- Elementor

12. There are two types of hooks:
- <u>Actions</u>: Allow to add data or change how WordPress operates.
- <u>Filtes:</u> Give the ability to change data during the execution of WordPress Core, plugins, and themes

13.

- Log into the server via SSH or FTP.
- Edit the **wp-config.php** file using SSH or your FTP client.
- When an error is thrown in WordPress, it will write to a file titled **debug.log**. This file is located in **wp-content/** directory.

14. Echo has no return value whereas print has a return value of 1.

15. $message is used to store variable data. $$message can be used to store variable of a variable.

16. Magic constants are the predefined constants in PHP which get changed on the basis of their use. They start with double underscore (__) and ends with double underscore.

17.

- One to one: Such a relationship exists when each record of one table is related to only one record of the other table

- One to many: Such a relationship exists when each record of one table can be related to one or more than one record of the other table.
- Many to many: This type is used when both tables could have multiple rows on the other side.

18. <u>Normalization:</u> Normalization is used to remove redundant data from the database and to store non-redundant and consistent data into it.

    <u>De-normalization:</u> Denormalization is used to combine multiple table data into one so that it can be queried quickly.

19. **<u>Data Independence:</u>** The ability to modify schema definition in one level without affecting schema of that definition in the next higher level is called data independence. There are two types of data independence which are: Physical data independence and Logical data independence.

20. Python namespaces are collections of currently defined symbolic names along with information about the object that each name references.

21. In Python Dictionary comprehension is a method for transforming one dictionary into another dictionary

22. Python slice() function is used to get a slice of elements from the collection of elements.

23. Memory management in Python involves a private heap containing all Python objects and data structures. The management of this private heap is ensured internally by the Python memory manager.

24. An array is also a vital component that collects several items of the same data type.Whereas, List is used to collect items that usually consist of elements of multiple data types. Also, Array consists of elements that belong to the same data type and List consists of elements that belong to the different data types.