Date: 04/11/2023

Instructions:

❖ **Test is to evaluate your skills, so kindly take it seriously and finish on time**
❖ **Don't copy paste the code from any source like the internet or books etc..**
❖ **Follow the best practices.**
❖ **Optimise the code**
❖ **Use comments where necessary**
❖ **Leave the answer sheet once the test is finished, our team will schedule a meeting for the individual evaluation and improvements**
❖ **All the best**

Questions:

Q1: Explain the differences between callbacks, Promises, and async/await. When would you use each in practical scenarios?

Q2: Provide an example of when the this keyword is used in JavaScript, and how it behaves in that context..

Q3: Explain the steps involved in making a GET request to an API using the Fetch API and handling the response.

Q4: Compare and contrast the use of local-storage and cookies for client-side data storage, and when to use each.

Q5: Give an example of a situation where you would choose to use an object over an array in JavaScript, and explain your reasoning.

Q6: How does hoisting impact variable declarations and function declarations in a practical context? Provide an example that demonstrates its effects.

Q7: What is the purpose of the map(), filter(), and reduce() functions in JavaScript?

Q8: How does "call stack overflow" occur in JavaScript, and how can it be prevented?

Q9: Describe the differences between deep copy and shallow copy in JavaScript when working with objects.

Q10: Write a program to print all the numbers from 1 to n .If m is present in between the sequence then stop printing any other number and break out of the loop.
Input :- n = 10 m = 4
Output :- 1, 2, 3

Q11: Given an array. We define a running sum of an array. Return the running sum of nums.
Input: nums = [1,2,3,4]
Output: [1,3,6,10]
Explanation: Running sum is obtained as follows: [1, 1+2, 1+2+3, 1+2+3+4].

Q12: Given an 2-D with unsorted elements. Merge all the elements into one sorted Array and return it.
Input: lists = [[1,4,5],[1,3,4],[2,6]]
Output: [1,1,2,3,4,4,5,6]

Q13: Create Dynamic Table
Example: Create 2 text boxes in HTML and add 1 submit button and enter something in the text boxes and do submit. After submitting the form data should be shown in the Table.

Q14: Create 2 drop downs using HTML in the first drop down show the list of states in the and in the second drop down we must show the districts list based on the state selected in the first drop down.

Q15: I have a number like 3Y based on the present date with the year we have to add the number to the present year and show the future date from Today's date with the year.
Example: Today's date is 11/3/2023 and we have 3Y so you have to show 11/3/2026 (2023 + 3Y == 2026) Please write the logic using the date method in js.