University of Oum El Bouaghi
Department of Mathematics and Computer Science
AWP Module (3rd year Bachelor ISSE) Typical Solution

➢ **Course comprehension responses: (11 pts)**

1- JavaScript is a language that allows:
- Create static web pages - Create dynamic web pages **X** - Create hybrid web pages
2- In which part of an html document can we insert JavaScript code?
- <body> only - <head> only - <head> and <body> **X**
3- Call the greet method shown below (javascript):

var obj = {
x: 10,
y: 20,
fx: {
greet: function() { alert("Hello World!"); }
}
};

A) obj.greet() B) obj.fx.greet() (Correct answer) C) obj.fx.greet D) NONE
4 - Identify the error(s) in the following code :

.card {
display: block;
vertical-align: middle;**X**
float: center;**X**
margin: 20px auto;
}

5- How to create a function in JavaScript?
A) function f() **X** B) function = f() D) function : f()
5 -The interface of a web application must be:
Presentable and predictable Intuitive and predictable (Correct answer) Accessible
6- Which function allows calling a function repeatedly after a certain time?
- setTimeout() - setInterval() (Correct answer) - setRepeter()
7- A thin client can:
- Execute treatments - Respond to requests - Perform requests **X**
8- How can we access the property top-price of an object obj?
A) obj.top-price B) obj["top-price"] (Correct answer) C)obj.accessProperty("top-price") D)Both A & B
9- Choose the Output of the following code:

let person = { name: "Lydia" };
const members = [person];
person = null;
console.log(members);

- null - [null] - [{}] - [{ name: "Lydia" }] X
10- Which method converts an object to a JSON string?
- JSON.parse() - JSON.stringify() (Correct answer) - Object.toString() - convertToString()
11- What is the HTML code for creating links?
- linkText - Click here **X** - <link http="URL" /> - Clickhere

Exercise 1: 4pts

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Age Category Checker</title>
```

```
</head>
<body>

<h2>Enter a person's age</h2>
<input type="text" id="ageInput" placeholder="Enter age here">
<button onclick="checkAge()">Submit</button>

<p id="output"></p>
<p id="dateEntry"></p>
<p id="primeCheck"></p>
<p id="perfectCheck"></p>

<script>
function checkAge() {
 const ageInput = document.getElementById("ageInput").value.trim();
 const output = document.getElementById("output");
 const dateEntry = document.getElementById("dateEntry");
 const primeCheck = document.getElementById("primeCheck");
 const perfectCheck = document.getElementById("perfectCheck");

 // Reset previous outputs
 output.textContent = "";
 dateEntry.textContent = "";
 primeCheck.textContent = "";
 perfectCheck.textContent = "";

 // Validation
 const age = parseInt(ageInput);
 if (ageInput === "" || isNaN(age) || age > 70 || age < 0) {
  output.textContent = "✗Error: Please enter a valid number between 0 and 70.";
  return;
 }
 // 1. Category determination
 if (age >= 10 && age <= 11) {
  output.textContent = "✓Category: Junior";
 } else if (age >= 12 && age <= 13) {
  output.textContent = "✓Category: Cadet";
 } else if (age >= 18 && age <= 70) {
  output.textContent = "✓Category: Adult";
 } else {
  output.textContent = "ℹ Age not in a defined category.";
 }
 // 2. Date of entry
 const now = new Date();
 dateEntry.textContent = "□ Date of entry: " + now.toLocaleString();
 // 3. Prime number check
 if (isPrime(age)) {
  primeCheck.textContent = "□ The age is a prime number.";
 } else {
  primeCheck.textContent = "□ The age is not a prime number.";
 }
 // 4. Perfect number check
 if (isPerfect(age)) {
  perfectCheck.textContent = "□ Happy Birthday! The age is a perfect number!";
 }
 // 5. Create address and person object
 const address = {
  street: "123 Maple St",
  city: "Exampleville",
  postalCode: "12345"
 };
 const person = {
  age: age,
  entryDate: now,
  address: address
 };
 console.log("□ Person object:", person); // Can be inspected in the browser console
}
// Helper functions
function isPrime(n) {
 if (n < 2) return false;
 for (let i = 2; i <= Math.sqrt(n); i++) {
  if (n % i === 0) return false;
 }
 return true;
}
```

```
function isPerfect(n) {
 let sum = 0;
 for (let i = 1; i < n; i++) {
  if (n % i === 0) sum += i;
 }
 return sum === n;
}
</script>
</body>
</html>
```

Note: Other correct solutions are accepted.

Exercise 2: (5 pts) HTML code display is as follows:

Event Tracker

Track Event

Click to track an event!

Event Number	Message	Timestamp
Event #2	Event #2 tracked!	10:05:53 AM
Event #3	Event #3 tracked!	10:05:53 AM
Event #4	Event #4 tracked!	10:05:53 AM
Event #5	Event #5 tracked!	10:05:53 AM
Event #6	Event #6 tracked!	10:05:54 AM
Event #7	Event #7 tracked!	10:05:54 AM
Event #8	Event #8 tracked!	10:05:54 AM
Event #9	Event #9 tracked!	10:05:55 AM
Event #10	Event #10 tracked!	10:05:55 AM
Event #11	Event #11 tracked!	10:05:55 AM