POKHARA UNIVERSITY

Level: Bachelor	Semester: Fall	Year: 2023
Programme: BCSIT		Full Marks: 100
Course: Internet Technology I		Pass Marks: 45
		Time: 3 hrs.

Candidates are required to answer in their own words as far as practicable. The figures in the margin indicate full marks.

Section "A"
Very Short Answer Questions

Attempt all the questions. [10×2]

1. Differentiate between Internet and Intranet.
2. Differentiate between static and dynamic web-page.
3. Write any 2 important features of HTML5.
4. What was the purpose of developing CSS?
5. What is responsive web design and how can it be accomplished?
6. What is a prompt box?
7. Define callback function.
8. Explain how to read and write a file using JavaScript?
9. It is better to avoid @import statements in CSS. Why?
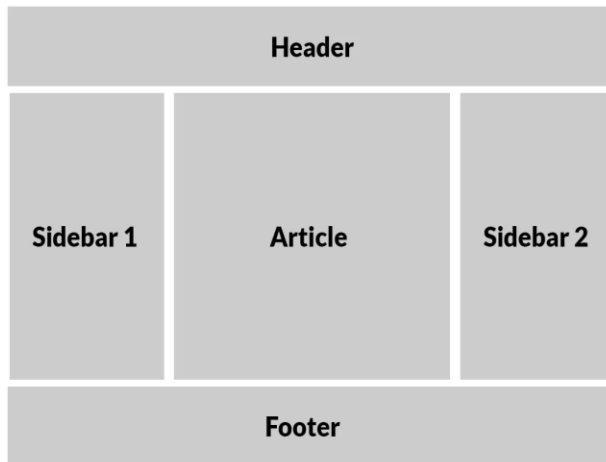10. What do you mean by DOM?

Section "B"
Descriptive Answer Questions

Attempt **any five** questions. [5×10]

11. Write an HTML program to create the following. Hovering over the image displays information about the country.

Country	Cities	Language	Currency	Flag
Nepal	• Kathmandu • Pokhara • Manang	Nepali	NRS	
USA	1. Washington D.C. 2. New York	English	USD	

12. Difference between Web 1.0, Web 2.0 and web 3.0 What do you mean by API in HTML5?

13. Design following web page layout using CSS Flexbox, incorporating at least three different flex properties.

Header		
Sidebar 1	Article	Sidebar 2
Footer		

14. Write a javaScript function to calculate the grade of a student based on the mark. the mark
should be passed as a parameter to the function. the function prints the grade on the following
condition.
If the average of marks is >= 90 then print Grade 'A'
If the average is <90 and >= 80 then print Grade 'B'
If the average is <80 and >= 70 then print Grade 'C'
else print Grade 'D'

15. Demonstrate the use of the fetch API in JavaScript to make an AJAX request to retrieve JSON data and log the response in the console.
API url: "https://example.com/api/test"
HTTP method: 'GET'

16. Explain the 2-Tier, 3-Tier and n-Tier technology with its architecture. What is the difference between inline, inline-block, and block?

Section "C"

17. Long Questions:**(any two)**   [2×15]

  a.

  i. Create a list below:

1. **Fruits**:
   - Apples
   - Bananas
   - Oranges
     1. Navel oranges
     2. Blood oranges
   - Grapes
2. **Vegetables**:
   - Leafy greens
     - Spinach
     - Kale
   - Root vegetables
     - Carrots
     - Potatoes
   - Cruciferous vegetables
     - Broccoli
     - Cauliflower

  ii. Write differences between var and let keyword in javascript. What are arrow functions?

  b.

  i. Write HTML code to generate the following Sign up form and JavaScript code to validate the password and confirm password fields are same or not on submit.

Sign Up Form

Basic Details
Firstname: [Firstname]

Lastname: [Lastname]

Gender: ● Male ○ Female ○ Others

Contact Details
Contact No: [Contact Number]

Email: [Email]

Login Details
Username: [   ]

Password: [•••••••••]

Confirm Password: [•••••••••]

[Submit] [Reset]

ii.   Develop a JavaScript function that iterates through an array of numbers, separates prime numbers and composite numbers into different arrays and returns them as the following object:
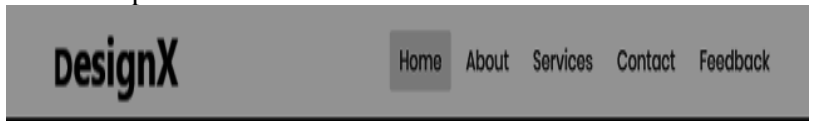
{
prime: [array of prime numbers],
composite: [array of composite numbers]
}

c.

i. Describe significance of CSS in web development, its syntax, and methods for applying CSS rules inline, internally, and externally. Additionally, elaborate on various CSS selectors, with examples demonstrating their usage.

ii. Implement a responsive navigation menu as follows using HTML and CSS, including a media query for mobile devices.

For desktop view:

For mobile view: