

POKHARA UNIVERSITY

Level: Bachelor

Semester: Spring

Year: 2024

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. What is the difference between a static web page and a dynamic web page?
2. What is the role of a web server in web development?
3. How do you insert an image in html with height and width set to 50%?
4. Write any 2 important features of HTML5.
5. What is inline CSS?
6. It is better to avoid @import statements in CSS. Why?
7. What is the difference between a transition and animation in CSS?
8. Define callback function.
9. What is DOM?
10. What is JSON? When is it used?

Section "B"

Descriptive Answer Questions

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

11. Write an HTML code to create the following. Clicking on the University link takes to "<https://www.jyoti-memorial.edu.np>".

Name	Age	University	Hobbies
Barun	22	Jyoti Memorial University	<ul style="list-style-type: none">● Running● Painting● Sketching
Ganesh	21		<ul style="list-style-type: none">● Trekking● Football● Video Games
Akriti	22		<ul style="list-style-type: none">● Knitting● Painting

12. Explain types of operator in JS? Explain in detail.
13. What are features added in HTML5? Also write disadvantages in HTML5.
14.
 - a. Write a JavaScript code snippet to change the text content of an HTML element with a specific ID.
 - b. Explain how error handling is done using try-catch blocks in JavaScript. Provide an example.
15. Explain the use of following CSS properties with suitable example:

- color, text-decoration, background-image, font-family, font-weight, text-transform.
16. Explain the 2-Tier,3-Tier and n-Tier architecture. What is difference between inline, inline-block and block?

Group "C"

Long Answer Questions

Attempt **any two** questions. [2×15]

17. Your city is planning a marathon event and has asked you to create a simple website using HTML, CSS, and JavaScript to handle the registration of participants.

Create a form that collects the participant's data (Name, Email, Age, and Race Category). The form should include the following race categories: 5K, 10K, and Half Marathon. The form can only be submitted by participants aged 18 and above. If someone under 18 tries to submit the form, display a popup message saying "You must be 18 or older to participate."

Upon successful validation, manipulate the DOM to display a customized confirmation message based on the selected race category:

For 5K: "Welcome to the 5K Marathon! Get ready to sprint!"

For 10K: "Welcome to the 10K Marathon! Pace yourself and enjoy the run!"

For Half Marathon: "Welcome to the Half Marathon! Prepare for an incredible challenge!"

Additionally, include a "Get Help" button that, when clicked, shows a message "Please call +977: 9812345678 for more details." Use JavaScript to handle the form submission and validation.

Use CSS to provide an attractive, responsive design for the form elements. Add a shadow to the containers, a hover effect on buttons, and a transition effect on the confirmation message.

- 18.
- Write differences between CSS Flexbox and CSS Grid with possible examples.
 - Design a single HTML page that demonstrates the use of all types of CSS selector.
 - Implement a responsive navigation menu as follows using HTML and CSS, including a media query for mobile devices.
19. Describe what the Fetch API is used for in web development. 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'