



UNIVERSITY EXAMINATIONS: 2025/2026
EXAMINATION FOR THE DIPLOMA IN INFORMATION
COMMUNICATION TECHNOLOGY
DICT 0121
INTERNET APPLICATIONS
END TERM EXAMINATION

DATE: TUESDAY 16TH DECEMBER, 2025
1:00PM DURATION: 2 HOURS

TIME: 11:00AM-

INSTRUCTIONS: Question One is Compulsory, Choose Three Other Questions

SECTION A (COMPULSORY)

QUESTION ONE (15 Marks) Compulsory

- a) Define web development and differentiate between client-side and server-side development. **(4 marks)**
- b) Explain the Software Development Life Cycle (SDLC) and describe how it applies to the creation of a web application. **(6 marks)**
- c) Discuss three key characteristics of a well-engineered website according to software engineering principles. **(5 marks)**

SECTION B: (ANSWER ANY THREE (3) QUESTIONS IN THIS SECTION)

QUESTION TWO (15 marks)

- a) Write the HTML code to create a web page with the following features: **(8 marks)**
 - i. A main heading: “Welcome to PAC Web Portal”
 - ii. A subheading: “Learn | Design | Build”
 - iii. A navigation menu with three links: Home, Courses, and Contact
 - iv. A paragraph introducing the website.
- b) Explain the role of HTML tags and attributes, providing three examples. **(4 marks)**

- c) Differentiate between block-level and inline elements in HTML with examples. (3 marks)

QUESTION THREE (15 marks)

- a) Define Cascading Style Sheets (CSS) and describe its importance in web design. (3 marks)
- b) Using CSS syntax, style the web page in question 2 to meet the following requirements: (8 marks)
- The body background color should be light blue.
 - All headings should be centered and colored dark blue.
 - Paragraph text should be justified, with a font size of 18px.
 - Add a border around the page content.
- c) Compare inline, internal, and external CSS, explaining when each is most appropriate. (4 marks)

QUESTION FOUR (15 marks)

- a) Explain the difference between variables and functions in JavaScript. (4 marks)
- b) Write a simple JavaScript program that: (7 marks)
- Prompts the user for their name,
 - Displays a greeting message, "Hello, John! Welcome to our site".
- c) Discuss the importance of JavaScript in enhancing user interactivity in modern web applications. (4 marks)

QUESTION FIVE (15 marks)

- a) Explain the concept of responsive web design and its importance in today's multi-device environment. (4 marks)
- b) Identify and describe the roles of the following web technologies in building modern websites: (6 marks)
- HTML5
 - CSS3
 - JavaScript ES6
- c) Explain how *version control systems* (like Git) contribute to teamwork in software engineering projects. (5 marks)

QUESTION SIX (15 marks)

- a) Outline the ethical considerations in web development, particularly regarding user data privacy and accessibility. (6 marks)
- b) Describe three methods used in website testing and debugging. (4 marks)
- c) Propose improvements for a poorly designed website that loads slowly and has inconsistent layout across browsers. (5 marks)