

B. Tech-5th (IT)

Web Technology

Full Marks : 50

Time : $2\frac{1}{2}$ hours

Answer all questions

The figures in the right-hand margin indicate marks

Symbols carry usual meaning

1. Answer *all* questions :

(a) Explain the key components of the Internet Architecture.

(b) What is the purpose of using `<div>` and `` in HTML ?

(c) How does the for loop work in JavaScript ?
Provide an example.

(2)

(d) What is the purpose of the Math.random() method in JavaScript ? Give an example.

(e) Explain the role of PHP in accessing a database.

2. (a) Describe the evolution of the internet. 4

(b) Compare the TCP/IP model with the OSI model. 4

Or

(a) Discuss the importance of ISPs in the internet architecture. 4

(b) Write an HTML code to create a table with images and anchor tags. 4

3. (a) What are client-side and server-side image maps ? Explain with examples. 4

(3)

(b) How can CSS be used to position elements on a webpage ? Provide an example. 4

Or

(a) Explain the attributes of the <form> element in HTML. 4

(b) Write HTML code to create a form with text fields, radio buttons and a submit button. 4

4. (a) Describe the different types of operators in JavaScript. Provide examples for any two. 4

(b) Write a JavaScript code to create an array of numbers and calculate their sum. 4

Or

(a) Write a JavaScript program to change the background color of a webpage when a button is clicked. 4

(4)

(b) Write a JavaScript function to check if a number is prime. 4

5. (a) What is the Common Gateway Interface (CGI) and how does it work in server-side programming ? 4

(b) Explain the concept of event handling in JavaScript. Provide an example of handling a click event. 4

Or

(a) What is DOM ? Discuss how the DOM can be manipulated using JavaScript. 4

(b) Explain how if...else and switch statements are used in JavaScript. Provide examples. 4

6. (a) Describe the HTTP protocol and its role in web communication. 4

(5)

(b) What are JavaScript objects ? Illustrate with an example. 4

Or

(a) Explain the role of firewalls in securing an intranet. 4

(b) Explain the working of a search engine. 4