PVP 20

Code: 20CS5621

III B.Tech - II Semester – Regular Examinations - APRIL 2024

WEB TECHNOLOGIES

(MINORS in COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	Interpret how does HTML contribute to the 3-tier web architecture, and what are the key components of each tier?	L2	CO1	7 M
	b)	i) Define Cascading Style Sheets (CSS) and explain its role in web development. ii) Identify the purpose of using style classes in CSS and provide examples.	L2	CO1	7 M
OR					
2	a)	Differentiate between various HTML heading tags and discuss how they impact the visual hierarchy of a web page, show them with a figure.	L2	CO4	7 M
	b)	Analyze the key differences between Inline, Internal, and External Style Sheets in CSS.	L2	CO2	7 M

UNIT-II					
3	a)	i. Define DHTML and explain its components. ii. List and briefly describe the client-side benefits of using JavaScript.	L1	CO2	7 M
	b)	Explain the basic components of document structure and their significance in creating well-organized documents.	L1	CO5	7 M
OR					
4	a)	Develop a simple JavaScript program that utilizes control flow statements to perform a specific task.	L3	CO1	7 M
	b)	i) Define XML and explain its primary purpose. ii) List and describe the basic syntax rules of XML.	L1	CO2	7 M
UNIT-III					
5	a)	Explain how JDBC facilitates the connection between Java applications and databases.	L2	CO3	7 M
	b)	Enumerate and describe the different types of JDBC drivers.	L1	CO3	7 M
OR					
6	a)	List the essential steps involved in writing a JDBC application.	L1	CO3	7 M
	b)	Develop a Java program using JDBC to perform basic database manipulations, such as inserting, updating, and deleting records.	L3	CO5	7 M

UNIT-IV					
7	a)	Demonstrate how to handle HTTP requests and responses in a servlet.	L3	CO4	7 M
	b)	List and briefly explain the steps involved in establishing database connectivity in Servlets.	L1	CO5	7 M
OR					
8	a)	Differentiate between the features of javax.servlet and javax.servlet.http packages.	L1	CO4	7 M
	b)	i) Summarize the key principles of the Model-View-Controller (MVC) architecture. ii) Analyze the benefits of using MVC architecture in web development.	L2	CO1	7 M
UNIT-V					
9	a)	Explain the fundamental differences between JavaServer Pages (JSP) and servlets. How does JSP address the limitations of servlets in web development?	L1	CO4	7 M
	b)	Describe the anatomy of a JSP page. How does the separation of concerns occur in a JSP file?	L2	CO1	7 M
OR					
10	a)	Develop a step-by-step process for JSP processing. Discuss how a JSP page is translated into a servlet and executed. Provide examples to illustrate each stage of the process.	L3	CO4	7 M

	b)	Compare and contrast the use of comments, expressions, and scriptlets in JSP pages. How do these elements contribute to the development and maintenance of dynamic web applications?	L4	CO5	7 M