

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST-3 EXAMINATIONS-2026

B. Tech-IV Semester (IT)

COURSE CODE (CREDITS): 25B1WCI435 (4)

MAX MARKS: 35

COURSE NAME: WEB TECHNOLOGIES AND APPLICATIONS

COURSE INSTRUCTOR: MR. PRATEEK

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problem

Q.No	Question	CO	Marks
Q1	(a) Discuss the role of NPM in the context of Node.js. (b) What is JDBC? How many types of JDBC drivers are there? (c) Explain the client-server architecture used for web technology. (d) Differentiate between the PHP indexed and associative arrays. (e) Name any one core built-in module of Node.js along with its usage and importance.	CO-5	5
Q2	Let's consider a task of reading an existing file named "myfile.txt" with the following contents and answer the questions below: Hello User! You are trying to read this file in Node.js Node.js is easy to learn (a) Which Node.js module will be imported to read this file? (b) Write down the sample code in Node.js to read the contents of the above file. (c) Which method shall be used, in case the "myfile.txt" does not exist already? Write down the sample code for this case also.	CO-5	6
Q3	What do you mean by CSS selectors? Discuss in detail any three different types of CSS selectors used to make a stylish website. Also, write down one sample program that incorporates these three types of CSS selectors explaining their use and importance.	CO-2	3
Q4	(a) What do you mean by Java Servlet? (b) Explain the various key stages of Servlet life cycle. (c) Write down a simple servlet program to display "Hello World" message in the web browser.	CO-5	6

Q5	(a) Draw neat and clean diagram to explain the JDBC architecture. (b) Write down various steps involved in the execution of a SQL query using JDBC along with the syntax for each step. (c) Write down sample code to establish a connection using JDBC. Display error message in the case of connection failure.	CO-5	6
Q6	Write down the following programs using JavaScript conditional and looping statements: (a) To check whether a given year is leap year or not. (b) To print the mathematical table of number 21.	CO-3	3
Q7	Consider the HTML form given below and perform the following tasks: (a) Write down HTML & CSS code to create the event registration form and save the code with event.html. (b) Fill this form with all necessary details and click on "Register" button to submit the form. Draw this form with appropriate values in all the form fields. (c) Retrieve the submitted data in a PHP file "new.php" such that the following message appears on a separate web page: "Hello Dhruv Sharma, We will call you shortly on your registered mobile number 9898765432" Registration (12 seats left) Registration is required for this event. Full Name: * Email: * Phone Number: * How did you hear about this workshop?: ☐ Library Website ☐ Flyer ☐ Professor ☐ Other Register	CO-4	6