

S.Y. M.Sc. Semester III**Departmental Elective Paper - 7 (CSA5303): Advanced Web Technologies****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** Acquire the knowledge about concepts of XML DOM.
CO2 Get familiarity with the implementation of AJAX concepts.
CO3 Acquire the knowledge about concepts of JSON.
CO4 Learn about concepts of Framework like Drupal.

Unit	Details	Lectures
I	XML DOM 1.1 XML DOM 1.2 XML XSLT 1.3 XML XQuery 1.4 XML XLink 1.5 XML Validator 1.6 XML DTD 1.7 XML Schema 1.8 XML Server	[8]
II	AJAX 2.1 Introduction 2.2 AJAX from User's Perspective 2.3 AJAX from Developer's Perspective 2.4 How AJAX works? 2.5 Applications of AJAX 2.6 AJAX web application model 2.7 Performing AJAX validation 2.8 Handling XML data using PHP and AJAX 2.9 Connecting database using PHP and AJAX	[9]
III	JSON 3.1 What is JSON 3.2 JSON Syntax 3.3 JSON DataTypes 3.4 JSON Objects 3.5 JSON Schema 3.6 JSON versus XML 3.7 JSON with PHP 3.8 JSON with AJAX	[9]
IV	PHP Framework 4.1 Introduction 4.2 Features, Applications 4.3 Essential concepts of Drupal 4.4 User Interface 4.5 Storing and Retrieving Data 4.6 Essential APIs	[12]

V	Web Services 5.1 Introduction 5.2 Characteristics of web services 5.3 Web services – Architecture 5.4 Web services - Components: XML-RPC, SOAP, WSDL, UDDI 5.5 Web services – Security 5.6 Web services – Standards, 5.7 Application of web services using PHP 5.8	[10]
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Books-

1. Sai Srinivas Sriparsa, Javascript and JSON Essentials, ISBN: 9781783286034, packt publishing, 2013.
2. Rebecca M. Riordan, Head First Ajax (O'Reilly), 2008.
3. Sas Jacobs, Beginning XML with DOM and Ajax: From Novice to Professional Paperback, Apress, 2006.
4. Erban Cerami, Web services Essentials, O'Reilly, 2002.

Web References

1. www.php.net.in
2. www.w3schools.com
3. www.wrox.com
4. www.tutorialspoint.com
5. <https://api.drupal.org>