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| <b>Department of Computer Science and Engineering</b> |                                 | <b>LP: OE18506</b><br><b>Rev. No: 00</b><br><b>Date:</b><br>02.01.2024 |
| <b>B.E / B.Tech</b>                                   | : CSE (Autonomous)              |  |
| <b>Regulation</b>                                     | : 2018                          |  |
| <b>Sub. Code / Sub. Name</b>                          | : OE18506/ INTERNET PROGRAMMING |  |
| <b>Unit</b>   | : <b>I</b>                      |  |

**Unit Syllabus:**

The Internet-Basic Internet Protocols (TCP/IP, UDP, DNS and High Level Protocols), World Wide Web, HTTP-Request and Response Message, Web Clients and Web Servers

**Objective:**

- To understand various protocols.

|   | <b>Topics to be covered</b>         | <b>Ref</b>                            | <b>Teaching Aids</b> |
|---|-------------------------------------|---------------------------------------|----------------------|
| 1 | The Internet                        | T1, Ch 1, pg(1-3)<br>R3, Ch1, pg(7-8) | BB/LCD               |
| 2 | Basic Internet Protocols - TCP      | T1, Ch 1, pg(4-6)                     | BB/LCD               |
| 3 | Basic Internet Protocols - UDP, DNS | T1, Ch 1, pg(6-7)                     | BB/LCD               |
| 4 | Basic Internet Protocols - HLP      | T1, Ch 1, pg(7-8)                     | BB/LCD               |
| 5 | World Wide Web                      | T1, Ch 1, pg(9-10)                    | BB/LCD               |
| 6 | HTTP-Request                        | T1, Ch 1, pg(12-15)                   | BB/LCD               |
| 7 | HTTP-Response                       | T1, Ch 1, pg(17-21)                   | BB/LCD               |
| 8 | Web Client                          | T1, Ch 1, pg(23-29)                   | BB/LCD               |
| 9 | Web Server                          | T1, Ch 1, pg(30-44)                   | BB/LCD               |

**Course Outcome 1: The students should be able to:**

Students will be able to be familiar with the basics of Internet Programming.

\* Session duration: 50 minutes



**Sub. Code / Sub. Name : OE18506/ INTERNET PROGRAMMING**

**Unit : II**

**Unit Syllabus: MARKUP LANGUAGES**

HTML Introduction-Syntax, Fundamental HTML elements, URLs, Lists, Tables, Frames

**Objective:**

- To study about various tags in html.

| Session No * | Topics to be covered                   | Ref   | Teaching Aids |
|--------------|--|---|---------------|
| 10           | HTML Introduction                      | T1, Ch 2, pg(56-61)<br>T2, Ch1,pg(13-56)    | BB/LCD        |
| 11           | Syntax                                 | T1, Ch 2, pg(61-72)<br>R1, Ch5, pg(114-116) | BB/LCD        |
| 12           | Fundamental HTML elements - Headings   | T1, Ch 2, pg(72-74)<br>T2, Ch8,pg(66-68)    | BB/LCD        |
| 13           | Fundamental HTML elements - Formatting | T1, Ch 2, pg(74-76)<br>T2, Ch9,pg(68-73)    | BB/LCD        |
| 14           | Fundamental HTML elements - Images     | T1, Ch 2, pg(76-80)<br>T2, Ch10,pg(73-81)   | BB/LCD        |
| 15           | URLs                                   | T1, Ch 2, pg(81-81)<br>T2, Ch12,pg(84-86)   | BB/LCD        |
| 16           | Lists                                  | T1, Ch 2, pg(82-83)                         | BB/LCD        |
| 17           | Tables                                 | T1, Ch 2, pg(85-89)<br>T2, Ch13,pg(88-91)   | BB/LCD        |
| 18           | Frames                                 | T1, Ch 2, pg(89-91)<br>T2, Ch14,pg(94-104)  | BB/LCD        |

**Course Outcome 2: The students should be able to:**

Students will be able to acquire knowledge and skills for creation of web page for client side with basic html elements.

\* Session duration: 50 mins



**Sub. Code / Sub. Name : OE18506/ INTERNET PROGRAMMING**

**Unit : III**

**Unit syllabus: FORMS AND STYLE SHEETS**

Form Creation with basic html elements, STYLE SHEETS -Introduction to CSS, Features, syntax and its types

**Objective:**

To impart knowledge in designing form with style sheets.

| Session No * | Topics to be covered                   | Ref   | Teaching Aids |
|--------------|--|---|---------------|
| 19           | Form Creation with basic html elements | T1, Ch 2, pg(98-104)<br>R1, Ch2, pg(54-56)    | BB/LCD        |
| 20           | Form Creation with basic html Entity   | T1, Ch 2, pg(105-107)<br>R1, Ch3, pg(59-86)   | BB/LCD        |
| 21           | Introduction to CSS                    | T1, Ch 3, pg(121-123)<br>R1, Ch5, pg(114-116) | BB/LCD        |
| 22           | CSS Features - Cascading               | T1, Ch 3, pg(133-137)<br>R1, Ch5, pg(116-118) | BB/LCD        |
| 23           | CSS Features - Text                    | T1, Ch 3, pg(140-149)<br>R1, Ch5, pg(121-123) | BB/LCD        |
| 24           | CSS Features - Box                     | T1, Ch 3, pg(151-157)<br>R1, Ch5, pg(125-126) | BB/LCD        |
| 25           | syntax and its types - Box Layout      | T1, Ch 3, pg(157-168)<br>R1, Ch5, pg(132-139) | BB/LCD        |
| 26           | syntax and its types - Positioning     | T1, Ch 3, pg(169-174)<br>R1, Ch5, pg(146-147) | BB/LCD        |
| 27           | syntax and its types - List and Table  | T1, Ch 3, pg(176-177)<br>R1, Ch5, pg(148-153) | BB/LCD        |

**Course Outcome 3: The students should be able to:**

Students will be able to develop web applications with styling sheets

\* Session duration: 50 mins



**Sub. Code / Sub. Name** : OE18506/ INTERNET PROGRAMMING

**Unit** : IV

**Unit syllabus: CLIENT SIDE PROGRAMMING -JAVASCRIPT**

CLIENT SIDE PROGRAMMING- History and Versions of Javascript-Basic syntax, Variables, Data Types, Operators, Functions and Regular Expressions.

**Objective:** To acquire knowledge about validation at client side.

| Session No * | Topics to be covered                | Ref  | Teaching Aids |
|--------------|-------------------------------------|--|---------------|
| 28           | History and Versions of Javascript. | T1, Ch 4, pg(192-193)<br>R3, Ch7, pg(198-202)  | BB/LCD        |
| 29           | Introduction to Javascript          | T1, Ch 4, pg(194-196)<br>R3, Ch7, pg(195-198)  | BB/LCD        |
| 30           | Basic syntax                        | T1, Ch 4, pg(198-199)<br>R1, Ch34, pg(194-197) | BB/LCD        |
| 31           | Variables                           | T1, Ch 4, pg(200-201)<br>R3, Ch8, pg(231-240)  | BB/LCD        |
| 32           | Data Types                          | T1, Ch 4, pg(201-202)<br>R3, Ch8, pg(240-250)  | BB/LCD        |
| 33           | Operators                           | T1, Ch 4, pg(204-208)<br>R3, Ch7, pg(212-219)  | BB/LCD        |
| 34           | Literals                            | T1, Ch 4, pg(208-209)<br>R3, Ch9, pg(271-309)  | BB/LCD        |
| 35           | Functions                           | T1, Ch 4, pg(209-211)<br>R3, Ch10, pg(315-351) | BB/LCD        |
| 36           | Regular Expressions.                | T1, Ch 4, pg(212-221)<br>R3, Ch11, pg(365-392) | BB/LCD        |

**Course Outcome 4: The students should be able to:**

Ability to create interactive web site for client side with JavaScript

\* Session duration: 50 mins



**Sub. Code / Sub. Name** : OE18506/ INTERNET PROGRAMMING

**Unit** : V

**Unit syllabus: SERVER SIDE PROGRAMMING-JAVA SERVLETS**

Introduction to servlet-Architecture overview, Servlet life cycle- Basic syntax, Generation of dynamic content with servlet, Session tracking with servlet(cookies and sessions).

**Objective:** To acquire knowledge about validation at Server side.

| Session No * | Topics to be covered                                | Ref   | Teaching Aids |
|--------------|---|---|---------------|
| 37           | Introduction to servlet                             | T1, Ch 6, pg(307-308)<br>R3, Ch 30, pg(1057-1058) | BB/LCD        |
| 38           | Architecture overview                               | T1, Ch 6, pg(308-309)<br>R3, Ch 30, pg(1059-1064) | BB/LCD        |
| 39           | Servlet life cycle                                  | T1, Ch 6, pg(313-314)<br>R3, Ch 30, pg(1064-1067) | BB/LCD        |
| 40           | Basic syntax  | T1, Ch 6, pg(314-314)<br>R3, Ch30, pg(1068-1071)  | BB/LCD        |
| 41           | Generation of dynamic content with servlet - GET    | T1, Ch 6, pg(311-313)<br>R3, Ch 30, pg(1064-1076) | BB/LCD        |
| 42           | Generation of dynamic content with servlet - POST   | T1, Ch 6, pg(314-319)<br>R3, Ch 30, pg(1079-1082) | BB/LCD        |
| 43           | Session tracking with servlet(cookies)              | T1, Ch 6, pg(329-331)<br>R3, Ch 30, pg(1087-1094) | BB/LCD        |
| 44           | Session tracking with servlet(Session creating)     | T1, Ch 6, pg(322-325)<br>R3, Ch 30, pg(1095-1098) | BB/LCD        |
| 45           | Session tracking with servlet(sessions termination) | T1, Ch 6, pg(325-327)<br>R3, Ch 30, pg(1098-1102) | BB/LCD        |

**Course Outcome 5:**

Students will be able to build a Dynamic web site with servlet.

\* Session duration: 50 mins



Sub. Code / Sub. Name : OE18506/ INTERNET PROGRAMMING

**Mapping CO – PO:**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| CO1 | 3   |     |     | 3   |     | 3   |     |     |     | 3    | 3    |
| CO2 | 3   | 3   |     | 3   | 3   | 3   |     |     |     | 3    | 3    |
| CO3 | 3   |     | 3   | 3   | 3   | 3   |     |     |     | 3    | 2    |
| CO4 | 3   |     | 3   | 3   | 3   | 3   |     |     |     | 3    | 2    |
| CO5 | 3   | 3   | 3   | 3   | 3   | 3   |     |     |     | 2    | 2    |


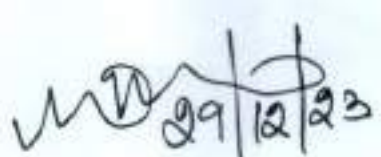
A – Excellent ; B – Good ; C - Average

**TEXT BOOKS**

1. Web Technologies-A Computer Science Perspective-Jeffrey C. Jackson, 4 th Edition
2. An Introduction to web development and Programming- Michael Mendez Suny Fredonia

**REFERENCES**

1. Core Web Programming, Marty Hall, Larry Brown, PrenticeHall, Second Edition,2001.
2. Eloquent Third Edition, A Modern Introduction to Programming, Marijn Haverbake,2018.
3. Deitel and Deitel and Nieto, —Internet and World Wide Web – How to Programl, Prentice Hall, 5th Edition, 2011.

|             | Prepared by   | Approved by  |
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| Date        | 29.12.2023  | 29.12.2023   |