Assignment rubrics	marks splitup	marks obtained	total
form design	4	4	10
button design	4	4	
layout look and field	2	2	
form design	4	4	10
button design	4	4	
layout look and field	2	2	
My SQL database	3	3	10
PHP script	3	3	
output	4	4	
HTML & PHP code	5	5	10
output	5	5	
HTM structure	5	5	10
output	5	5	

SAVEETHA SCHOOL OF ENGINEERING
SIMATS, CHENNAI

Course Code /Title: CSA4399 – Internet Programming
Programme : Computer Science and Engineering

ASSIGNMENT QUESTIONS
SET - 1

S.No	Questions	Marks	CO	BTL
1	You are tasked with creating a web page for a bike showroom. The showroom wants a clean and interactive design where customers can easily navigate through different bike brands and view the specific models and their specifications. The page should be divided into three frames using a frameset: a top row for displaying the showroom name, a left column for listing bike brands with hyperlinks, and a right column for showing the corresponding bike models and specifications when a brand is selected.	10	CO1	3
2	You are tasked with designing a job application form for a company's career page. The form should be user-friendly and visually appealing. The form needs to capture the applicant's personal information, including their name, highest qualified degree, and gender. Additionally, it should have a "Submit" button to send the application and a "Cancel" button to reset the form or go back to the previous page.	10	CO1	3
3	You have been assigned the task of establishing a development environment for a new web application project. The team is considering whether to utilize the LAMP stack or the WAMP stack. They need a clear understanding of the essential components of these stacks, their functions, and the installation procedures on both Linux and Windows systems. Additionally, they seek to grasp the role of the Apache web server within the stack and how it integrates with the other components.	10	CO1	2
4	You are developing a web application that involves detailed interactions between clients and servers using HTTP. Your task is to ensure that the application can handle various HTTP request and response messages correctly. Additionally, you need to understand and manage common HTTP response status codes to effectively troubleshoot and handle different scenarios Explain the structure of an HTTP request message and an HTTP response message.	10	CO1	2
5	You are tasked with creating a simple multi-page website for a small business that includes a homepage, an about page, and a contact page. The client wants the site to have a cohesive design with appealing visual elements. You need to apply various CSS styling techniques, including color schemes, typography, and layout	10	CO1	3

Assignment - 1

24/8/24

are tasked with creating a web page for a bike showroom. The showroom wants a clean and interactive design where customers can easily navigate through different bike brands and view the specific models and their specifications. The page should be divided into three frames using a frameset: a top row for displaying the showroom name, a left column for listing bike brands with hyperlinks, and right column for showing the corresponding bike models and specifications when a brand is selected.

HTML Code :-

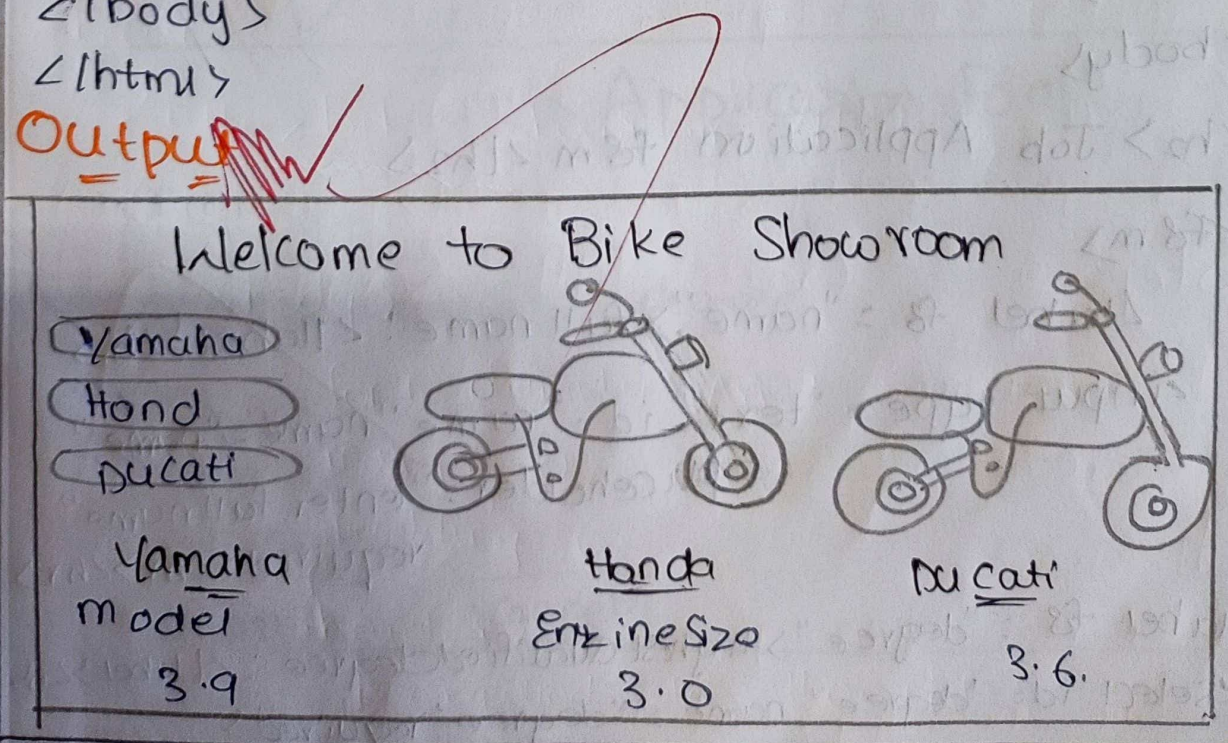
```
<!DOCTYPE html>
<html>
<head>
    <title> Bike Showroom </title>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 0;
            padding: 0;
        }
        .header {
            background-color: #007bff;
```

```
color : white;
text-align : center;
padding : 20px;
}
.container {
    display : flex;
    height : 100vh;
}
.brand-list {
    width : 20%;
    background-color : #f8f9fa;
    padding : 0;
    list-style : none;
}
.brand-list li {
    padding : 10px;
    border-bottom : 1px solid #ccc;
}
.brand-list li a {
    text-decoration : none;
    color : #000;
    display : block;
    padding : 10px;
}
.brand-list a : hover {
    background-color : #007bff;
    color : white;
}
.bike-details {
    flex : 1;
    padding : 20px;
}
```

```
</head>
<body>
    <div class = "header">
        Welcome to Bike Showroom.
    </div>
    <div class = "container">
        <ul class = "brand-list">
        <li><a href = "#" on click = "ShowBike
                Details('yamaha')">yamaha</a></li>
    <li> <a href = "#" on click = "ShowBikeDetails
                ('Honda')"> Honda </a></li>

<li> <a href = '#' on click = "Show BikeDetails
                (Ducati')"> Ducati </a></li>
    </ul>
    <div class = "bike-details" id = "bike details">
</body>
</html>
```

Output



2) You are tasked with designing a job application form for a company's career page. the form should be user friendly & visually appealing. the form needs to capture the applicants personal information, including their name, highest qualified degree and gender. Additionally, it should have a "Submit" button to send the application and a "Cancel" button to reset the form & go back to previous page.

HTML Code :-

```
<!DOCTYPE html>
<html lang = "en">
<head>
  <meta charSet = "UTF-8">
  <meta name = "viewport" content = "width =
                device-width, initial-scale ">
<title> Job Application form </title>
</head>
<body>
<h2> Job Application form </h2>
<form>
  <label for = "name"> full name : </label> <br>
  <input type = "text" id = "name" name = "name",
          placeholder = "enter full name"
          required> <br> <br>
<label for = "degree"> Highest Qualified degree : </label> <br>
<select id= "degree" name = "degree" required>
```

```
<option value = " "> Select your degree : </label><br>
<option value = "highschool">High School diploma </option>
<option value = "bachelors"> Bachelor's degree </option>
<option value = "masters"> master's degree </option>
<option value = "phd"> phd </option>
</select> <br> <br>
<label> Gender : </label> <br>
<input type = "radio" id = "male" name = "gender"
                                value = "male" required>
<label for = "male"> male </label><br>
<input type = "radio" id = "female" name =
"gender" value = "female" required>
<label for = "female"> female </label><br>
</form>
</body>
</html>
```

Output

Job Application Form

Full name : [ ]

Highest Qualified degree :

Gender :

(•) male

( ) female

[Submit] [Cancel]

3) you have been assigned the task of establishing a development environment for a new web application project. The team is considering whether to utilize the LAMP stack & WAMP stack. Additionally, they seek to grasp the role of Apache web server within stack & how it integrates with other components.

Step-1 :- Create MySQL Database & Table

```
CREATE DATABASE library;
USE library;
CREATE TABLE books(
    id INT AUTO_INCREMENT PRIMARY KEY,
    title VARCHAR(255) NOT NULL,
    author VARCHAR (255) NOT NULL,
    Published_year INT NOT NULL
  );
Insert into books (title, autho, Published_yeae) value
('To kill a mockingbird', 'Harper Lee', 1960),
('1984', 'George Orwell', 1949),
('the great gatsby', 'F. Scott fitzgerald', 1925);
```

Step-2 :- Create PHP Script

```
$servername = "local host";
$username = "root";
$password = " ";
$dbname = "library";
$conn = new mysqli ($servername, $username,
                    $password, $dbname);
```

```
if ($conn -> connect_error){
  die("Connection failed :". $conn -> connect_error);
}
$sql = "Select id, title, author, published year
                FROM books";
$result = $conn -> query ($sql);
if ($result -> num_rows >0){
  echo "<h1> list of Books </h1>";
  echo "<table border='1'><tr><th>ID</th><th>
          Title </th><th> Author </th><th>
          year</th></tr>";
while ($row = $result -> fetch-assoc()){
  echo "<tr><td>". $row["id"]. "</td><td>".
          $row["title"]. "</td><td>".
          $row["author"]. "</td><td>".
        . $row["published-year"]. "</td></tr>";
}
  echo "</table>";
}else{
  echo "No books found";
}
$conn -> close();
```

Step-3 :- Save the PHP file.

Step-4 :- Access the web application.

Output :-

ID	title	Author	year
1	To kill moking bird	Harper Lee	1960.
2	1984	George orwell	1949
3	the great gatsby	F. Scott fitzerald	1925

Assignment-2

4) You are developing a web application that involves detailed interactions b/w clients & servers using HTTP. Your task is to ensure application can handle various HTTP request & response. Explain structure of HTTP request message & an HTTP response message.

Structure of HTTP Request message

An HTTP request is sent by client to server asking for a resource or sending data.

⇒ The request line contains HTTP method, request URI and HTTP version.

Structure of HTTP Response message

An HTTP response is sent by server in response to client's HTTP request.

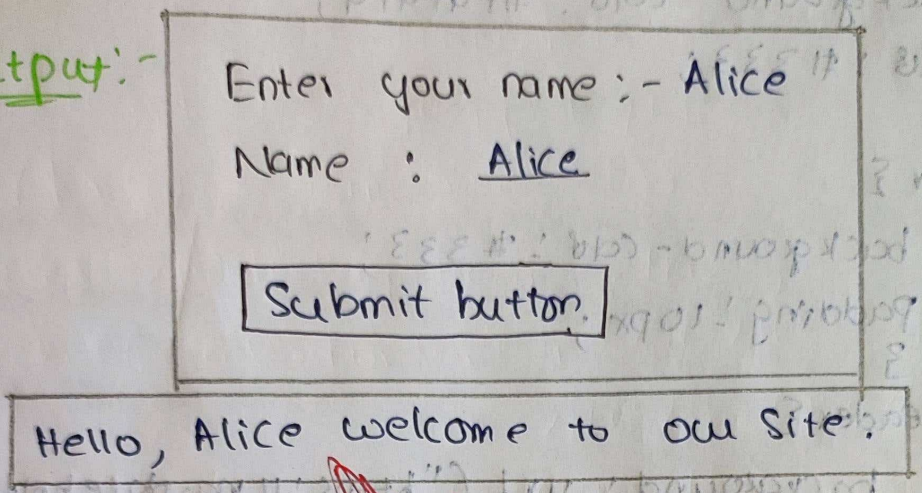
⇒ The status line consists of HTTP version, status code, reason phrase.

Create HTML and PHP code

```
<?php
if($_Server['Request_method'] == 'post'){
    $name = htmlspecialchars($_POST['name']);
    echo "<h2> hello, $name! welcome to our site</h
}else{
    echo '<h1> Enter your name : </h1>';
    echo '<form action = "index.php" method = "POST
        <label for = "name">Name : </label><br>
        <input type = "text" id = "name" name = "name
            required><br><br>
```

```
<inpt type = "Submit" value = "Submit">
  </form>';
}
?>
```

Output:-



5) you are tasked with creating a simple multiple website for small business that includes homepage, an about page, and a contact page. the client wants site to have cohesive design. apply various css styling techniques including color schemes to enhance overall look & feel of the site.

HTML Structure

```
<!DOCTYPE html>
<html lang = "en">
<head>
  <meta charset = "UTF-8">
  <meta name = "viewport" content = "width = device-
                width, initial-scale = 1.0">
<title> Small Business website </title>
<style>
    * {
      margin : 0;
      padding: 0;
      box-sizing : border-box;
```

```
body{
  font-family : Arial , Sans-serif ;
  line-height : 1.6 ;
  background - colo : #f4f4f4 ;
  colo : #333 ;
  }
  nav {
     background - colo : #333 ;
     padding : 10px ;
     }
    header {
       background : url ("https://via.placeholder")
       height : 400px ;
       colo : white ;
      }
      footer {
       background - colo : #333 ,
       colo : white ;
       text-align : center ;
        padding : 10 px ;
      }

<section id = "contact">
   <h2> Contact us </h2>
   <p> if you have any questions, feel free to
        reach out </p>
</section>
</footer>
  <p> small Businees website </p>
</footer>
</body>
</html>
```

save javascript as

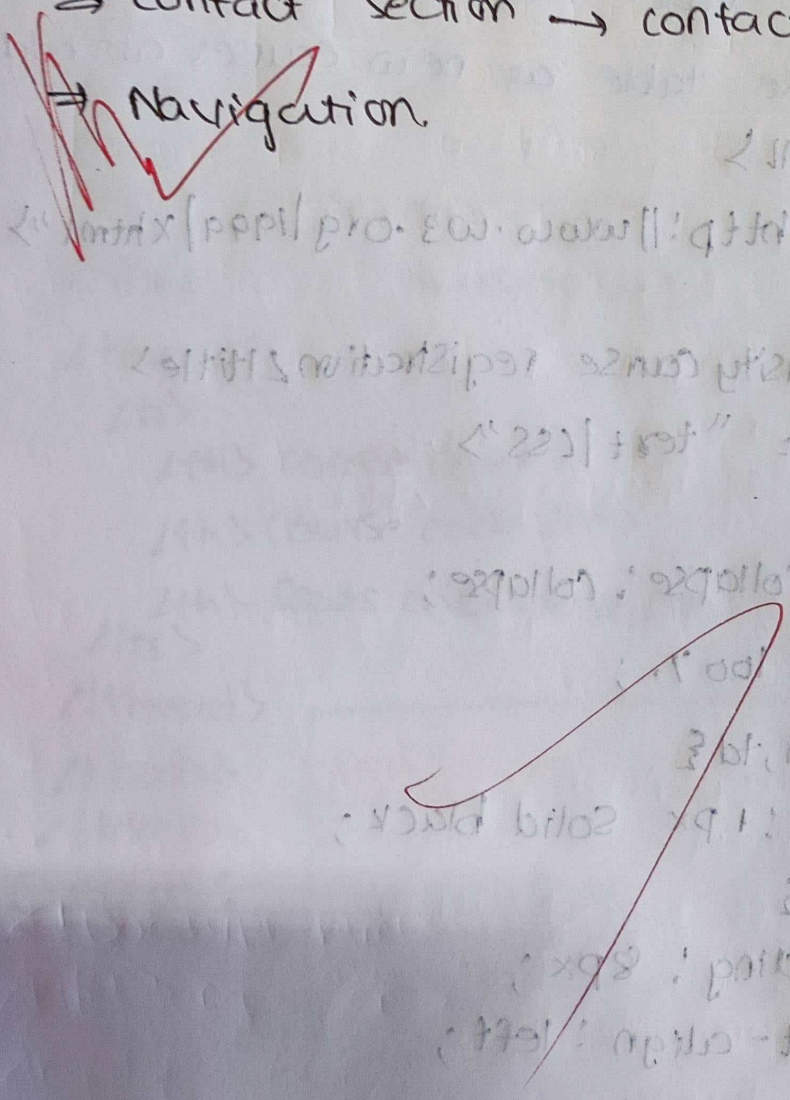
Output :-

Home page :- user is greeted with large hero section with background image

⇒ About section → information about business

⇒ Contact section → contact info.

⇒ Navigation.



Assignment-3

1) Implementing a feature in a web application that tracks the no of accesses by a client within a single session. you need to use java servlets to manage & monitor session data. the application should count how many times the client access.

```
import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
public class AccessTrackingServlet extends HttpServlet{
  private static final long serialVersionUID = 1L;
  protected void doGet(HttpServletRequest request, HttpServlet
                       response) throws ServletException{
  HttpSession session = request.getSession(true);
  if(accessCount == null){
  accessCount = 0;
}
accessCount++;
session.setAttribute("accessCount", accessCount);
response.setContentType("text/html");
response.getWriter().println("<html><body>");
response.getWriter().println("<h2>Session info</h2>");
response.getWriter().println("<p>Session id: " + session
                             Id + "</p>");
response.getWriter().println("</body></html>");
```

Output:-

 Session Id: 123456789abc
 Creation time: Mon Sep 10 15:12:00
 Last accessed time: Mon Sep 10 15:25:10 2024
 number of access: 5

2) write a scenario where you had to use JSTL to solve a compler problem & how you went about it. also elaborate the function.

```
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.request;
import java.util.map;
public class
Product list servlet extends http servlet{
  protected void
do get (Http servlet request, http servlet)
product ("laptop", "Elections", 1000, true);
new
 product ("shirt", "clothing", 30, true);
 new
product <list.jsp"). forward request, response);
}}
```

Output :-

<strong laptop - $1000 - Available

<clothings> Shirt - $30 - Available

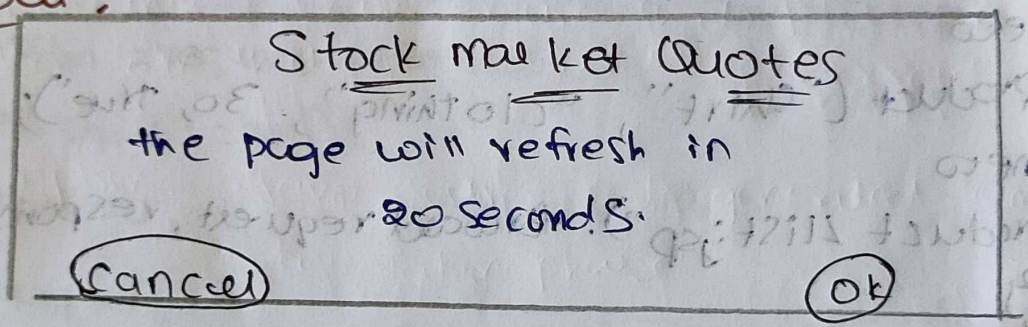
---

3) A page of stock market quotes uses script to refresh the page every 5 minutes in order to ensure largest statistics remain available.

```
<!Doctype html>
<html lang = "en">
<heads
  <meta charset = "UTF-8">
    <meta name = "viewport" content = "width = device-width,
                                initial-scale = 1.0">
```

```
var user response = confirm page will refresh");
if(!user response){
window.location.reload();
}else{
setTimeout(refresh page, 3000);
}
}
windows location.reload();
}refresh interval();
<h1>Stock market Quotes</h1>
<p> Here you can display ref-time</p>
</body>
</html>
```

Output:-



4) you are developing an e-comerce application that needs to integrate with an external payment gateway service. describe the steps.

```
import java.package.name.request service;
import.package.name.payment service pdt type;
public class payment client{
  public static void main(String[]args){
payment service sewice = new payment service();
String response = pdt.process payment("amount",
                  "currency","payment details");
System.out.println("responce:"+responce);
}
```

output :-

payment response :-

payment successful for amount 100.00 USD

Assignment - 4

1) from a developers prespective, discuss why JDBC is essential in building database-driven applications.

```
<context>
  <resource name = "jdbc/mydata source" = "container"
type = "java.sql.datasource"
      maxtotal = "20"
      maxIdle = "10"
maxwait millis = "1000"
username = "dbuser"
password = "dbpassword".
/>
</content>
```

Collable Statement

```
import java.sql.collable Statement;
import java.sql.connection;
import java.sql.sql exception;
public class collabstatement Example{
public void collabsted producer (int employee Id){
  String sql = {call get employee name(?,?)};
try connection conn = database utility.getConnection();
System.out.print(" Employee name :" + Employee name);
} catch(sql exception){
    e.printstack();
}}
```

Output

Employee id = 1, name : meena

Employee id = 2, name : vijaya

Rows updated : 1

Employee name : john.

2) describe the life cycle of phases of JSP page. Explain the significance of each phase in JSP Execution

* Translation Page :-

description :- JSP page is translated into java servlet by JSP Engine (eg. HTML mixed with JSP)

Significance :- phase ensure that JSP is converted into form that java servlet can execute.

* Compilation phase :-

description :- Java source code generated from translation phase.

Significance :- Compilation ensures that JSP is converted into Executable.

* Initilization phase :-

description :- The servlet container initializes the servlet instance.

Significance :- initialization sets up any resource the java might need.

* Requesting processing phase :-

description :- the servlet process incoming client request by calling the service();

Significance :- this phase is where the dynamic content generation occurs.

* Destroy phase :-

description :- The servlet container initialize the servlet instance

Significance :- Initialization set up any resource the JSP might need.

3) You need to develop a PHP program that generates chessboard.

PHP Code :-

```
<!DOCTYPE html>
<html lang = "en">
<head>
 <meta - charset = "UTF-8">
<meta-name = "viewpdf" content = "width = device -
                    width, initial-scale = 1.0">
<title> chessboard </title>
</head>
<body>
table {
  boarder : collapse : collapse;
  width : 400px;
  height : 400 px;
}
td {
   width : 300px;
   height : 30 px;
for ($row = 0; $row < 8; $row++){
    echo "<tr>"
for ($col = 0; $col < 8; $col++){
  echo "<tx">;
}
}>
</table>
</body>
</html>
```

Output

[w] [B] [w] [B] [w] [B]
[B] [w] [B] [w] [B] [w]
[w] [B] [w] [B] [w] [B]
[B] [w] [B] [w] [B] [w]
[w] [B] [B] [B] [w] [B]
[B] [w] [B] [w] [B] [w]

4) You are developing a PHP application that reads content from a text file and uses regular expressi to extract such as setps provided code.

PHP Code:-

```
<? PHP
$textfile path = "input. txt";
$ xmlfilepath = "output. xml";
$textcontent = file get . contents ($textfile path)
        0-9 - ] +) [a-z A-Z] {2,4}/i;
$phone pattern = '/. b\d {10} \b/. ;
preg match. all ($email pattern, $ text content
                                        $phones).
preg. match. all ($phone pattern, $text content,
                                        $phones);
$xml = new
 Simple xml element ("<Data>");
$emails Element = $xml -> add child ('emails');
Simple xml Elements ('<Data >);
$ phones Elements = $ xml -> add child ('phone numbers
echo "data Extracted and Saved to xml file succesfull
?>
```

Output:-

Email: Supps t@gmail.com
Phone number:- 8019519846.

Assignment-3

	Assignment rubrics	marks Splitup	marks obtained	total
1	Code implementation	8		
	Session data accuracy	5		
	Efficiency & clarity	3		
	explanation.	4		
2	Scenario Explanation	6		
	function library Explanation	5		
	custom functions	5		
	Clarity & Organization	4		
3	Script functionality	8		
	user interaction design	5		
	code Efficiency	4		
	Explanation.	3		
4	understanding of WSDL	6		
	Client code generation	6		
	Error handling	4		
	clarity and depth.	4		

Assignment - 4

	Assignment rubrics	marks split up	marks obtained	total
1.	Explanation	5		
	Connection pooling	6		
	SQL queries	5		
	Statement types	4		
2.	lifecycle phases Explanation	6		
	Embedding java code	5		
	Advantages & disadvantages	5		
	clarity & depth	4		
3.	Code implementation	8		
	HTML table structure	5		
	Alternating colors logic	4		
	Explanation	3		
4.	Code implementation	8		
	pattern Extraction	5		
	XML file generation	4		
	DTD vs. XML Schema Comparision.	3		