PARTIAL Final Exam Reference Packet

(Note that some items here may be more pertinent than others; you'll need to be discerning.)

Example 1 - St10CommonImportTop.jsp (with comments removed)

```
<!DOCTYPE html>
<html>

<head>
    <title> <%= pageTitle %> </title>
    <meta charset="utf-8" />

    <%@ page import="java.sql.*, java.text.*" %>
</head>

<body>
    <h1> <%= pageTitle %> </h1>
```

Example 2 - St10Sessions1.jsp

```
<%! String pageTitle = "Sessions page 1 in-class"; %>
<%@ include file="St10CommonTop.jsp" %>

    <ul>
        <li> is the automatically-defined session new?:
            <%= session.isNew() %> </li>
        <li> trying to set an attribute for this session:
            attribute page_num, value 1;

            <%-- look! auto-boxing DOES work for session
                attributes?? --%>

            <% session.setAttribute("page_num", 1); %>
            </li>

        <li> max inactive interval:
            <%= session.getMaxInactiveInterval() %> </li>
    </ul>

    <form action=
 "http://nrs-projects.humboldt.edu:8888/examples/jsp/student/St10Sessions2.jsp"
        method="post">
        <label> Name: <input type="text" name="username" /> </label> <br />
        <input type="submit" value="Submit" />
    </form>

<%@ include file="St10CommonBottom.jsp" %>
```

Example 3 - Excerpt from St10Sessions2.jsp

```
        <tr>
            <td> session attribute page_num: set? </td>
            <td> <%= session.getAttribute("page_num") %> </td>
        </tr>
        ...
        <tr>
            <td> username grabbed from page 1 form: </td>
            <td> <%! String userName; %>
                <% userName = request.getParameter("username"); %>
                <%= userName %>
            </td>
        </tr>
```

Example 4 - edited St10EmpSal.java (comments removed)

```java
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class St10EmpSal extends HttpServlet
{
    private String username;
    private String password;

    public void doPost(HttpServletRequest request,
                       HttpServletResponse response)
                    throws ServletException, IOException
    {
        response.setContentType("text/html");
        ServletOutputStream out = response.getOutputStream();

        username = request.getParameter("username");
        password = request.getParameter("password");

        Html318Helpers.beginHtml(out, "EmpSal Servlet");
        grabEmpSalFromDatabase(out);
        Html318Helpers.endHtml(out);
    }

    private void grabEmpSalFromDatabase(ServletOutputStream outStream)
                throws IOException
    {
        String eName;
        int    eSal;

        try
        {
            System.setProperty("java.net.preferIPv4Stack", "true");
            Class.forName("oracle.jdbc.driver.OracleDriver");

            Connection con = DriverManager.getConnection(
                "jdbc:oracle:thin:@cedar:1521:student",
                username, password);

            Statement stmt = con.createStatement();
            String query = "select empl_last_name, salary " +
                           "from empl";
            ResultSet rS = stmt.executeQuery(query);
            outStream.println("");
            outStream.println("<h1>Employees and their salaries</h1>");
            outStream.println("<table>");
            outStream.println("<tr> <th> Employee Last Name </th>");
            outStream.println("     <th> Employee Salary </th> </tr>");

            while (rS.next())
            {
                eName = rS.getString(1);
                eSal = rS.getInt(2);

                outStream.println("<tr> <td> " + eName + " </td>");
                outStream.println("     <td> $" + eSal + " </td> </tr>");
            }
```

```
            outStream.println("</table>");
            stmt.close();
            con.close();
        }
        catch (Exception e)
        {
            outStream.println("<p> " + e + "</p>");
        }
    }
}
```

Example 5 - CallHowMany.java excerpt (with comments removed):

```
CallableStatement cStmt =
    con.prepareCall("begin ? := how_many(?); end;");

cStmt.registerOutParameter(1, java.sql.Types.INTEGER);
cStmt.setString(2, args[0]);
cStmt.execute();

System.out.println("Have " + cStmt.getInt(1)
    + " copies of " + args[0]);

cStmt.close();
con.close();
```

Example 6 - PrepStmtEx.java excerpt (with comments removed):

```
PreparedStatement pStmt = con.prepareStatement
    ("insert into table_from_java " +
              "values " +
     "(?, sysdate, ?, ?, ?)");

con.setAutoCommit(false);
int numRows = colors.length;

for (int i=0; i<numRows; i++)
{
    pStmt.setInt(1, nextPK);
    nextPK++;
    pStmt.setString(2, colors[i]);
    pStmt.setInt(3, codes[i]);
    pStmt.setDouble(4, deposits[i]);

    pStmt.executeUpdate();
}

con.commit();
```

Example 7 - SpewTableColumns.java excerpt (with comments removed):

```java
Statement stmt = con.createStatement();
String query = "select * " +
                "from " + whichTable;
ResultSet rS = stmt.executeQuery(query);

ResultSetMetaData md = rS.getMetaData();
int columnCt = md.getColumnCount();
System.out.println();

for (int i=1; i<= columnCt; i++)
{
    System.out.println( md.getColumnLabel(i));
}
```

Example 8 - StoredProcCall.java excerpt (with comments removed):

```java
CallableStatement cstmt = con.prepareCall(
    "{call SP_FROM_JAVA(?, ?, ?, ?, ?)}");

cstmt.registerOutParameter(1, java.sql.Types.INTEGER);
cstmt.registerOutParameter(2, java.sql.Types.CHAR);
cstmt.setInt(3, 20);
cstmt.setString(4, "red");
cstmt.registerOutParameter(5, java.sql.Types.INTEGER);

cstmt.execute();

System.out.println("Stored Proc OUT params:");
System.out.println("Out Parameter 1: " + cstmt.getInt(1));
String outParam2 = cstmt.getString(2).trim();
System.out.println("Out Parameter 2: " + outParam2);
System.out.println("Out Parameter 5: " + cstmt.getInt(5));
```

Example 9 - excerpt from try-insert.php (with comments removed)

```php
$insert = 'insert into log_table '.
          'values '.
          '(:bind1, sysdate)';
$ins_stmt = oci_parse($conn, $insert);
oci_bind_by_name($ins_stmt, ":bind1", $username, 15);
$num_inserted = oci_execute($ins_stmt, OCI_DEFAULT);
print "<h3>inserted: ".$num_inserted." rows?</h3>\n";
oci_commit($conn);
```

Example 10 - try-oracle.php excerpt (with comments removed)

```php
<?php
    // ...stuff cut ...
    $db = "(DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)
                              (HOST = cedar.humboldt.edu)
                              (PORT = 1521))
           (CONNECT_DATA = (SID = STUDENT)))";

    $conn = oci_connect($username, $password, $db);

    if ($conn == false)
    {
        echo "<p> ACK, try again! couldn't connect! </p>";
        require_once("my-std-footer.html");
        exit;
    }

    $query = 'select empl_last_name, hiredate, salary, commission '.
            'from empl';
    $stmt = oci_parse($conn, $query);
    oci_execute($stmt, OCI_DEFAULT);
?>
    <table>
        <tr> <th> Name </th> <th> Date of Hire </th> <th> Salary </th>
            <th> Commission </th> </tr>
<?php
    while (oci_fetch($stmt))
    {
?>
        <tr> <td> <?= oci_result($stmt, "EMPL_LAST_NAME") ?> </td>
            <td> <?= oci_result($stmt, "HIREDATE") ?> </td>
            <td class="right"> $<?= oci_result($stmt, "SALARY") ?> </td>
<?php
        $curr_commission = oci_result($stmt, "COMMISSION");
        if ($curr_commission == NULL)
        {
?>
            <td> (no commission) </td>
<?php
        }
        else
        {
?>
            <td class="right"> $<?= $curr_commission ?> </td>
<?php
        }
?>
        </tr>
<?php
    }
    oci_free_statement($stmt);
    oci_close($conn);
?>
    </table>
```

Example 11 - try-stored-subroutine.php except (with comments removed)

```php
    $proc_call = 'begin sp_from_java(:bind1, :bind2, :bind3, '.
                            ':bind4, :bind5); end;';
```

```php
    $stmt = oci_parse($conn, $proc_call);

    oci_bind_by_name($stmt, ":bind1", $out_var1, 10);
    oci_bind_by_name($stmt, ":bind2", $out_var2, 10);

    $arg3 = 20;
    oci_bind_by_name($stmt, ":bind3", $arg3);

    $arg4 = "red";
    oci_bind_by_name($stmt, ":bind4", $arg4);

    oci_bind_by_name($stmt, ":bind5", $out_var5, 10);

    oci_execute($stmt, OCI_DEFAULT);
?>
    <h2> RESULTS of STORED PROCEDURE CALL (sp_from_java) </h2>
    <p>
    out parameter #1 value: <?= $out_var1 ?> <br />
    out parameter #2 value: <?= $out_var2 ?> <br />
    out parameter #5 value: <?= $out_var5 ?> <br />
    </p>
<?php
    oci_free_statement($stmt);

    $funct_call = 'begin :return_value := max_on_hand(:pub_name); end;';
    $stmt = oci_parse($conn, $funct_call);

    oci_bind_by_name($stmt, ":return_value", $ret_val, 10);

    $this_pub = 'Addison-Wesley';
    oci_bind_by_name($stmt, ":pub_name", $this_pub);

    oci_execute($stmt, OCI_DEFAULT);
?>
    <h2> RESULTS of STORED FUNCTION CALL (max_on_hand) </h2>
    <p>
    Max on hand for <?= $this_pub ?>: <?= $ret_val ?>
    </p>
<?php
    $this_pub = 'Prentice Hall';
    oci_bind_by_name($stmt, ":pub_name", $this_pub);

    oci_execute($stmt, OCI_DEFAULT);
?>
    <h2> RESULTS of STORED FUNCTION CALL (max_on_hand) </h2>
    <p>
    Max on hand for <?= $this_pub ?>: <?= $ret_val ?>
    </p>
```

Example 12 - modified version of js-play1.html (with comments removed)

```html
<!DOCTYPE html>
<html>
<head>
    <title> Playing with JavaScript - 1 </title>
    <meta charset="utf-8" />
    <link href="play.css" type="text/css"
        rel="stylesheet" />

    <script src="please.js" type="text/javascript">
    </script>

    <script type="text/javascript">
        window.onload =
            function()
            {
                var myButton = document.getElementById("magicButton");
                myButton.onclick = sayMagicWord;
            };
    </script>
</head>

<body>
    <noscript>
        <p>
        Note -- you do not have JavaScript available or enabled.
        This page will not work correctly without JavaScript.
        </p>
        <hr />
    </noscript>

    <p>
    <button id="magicButton">
        Say the Magic Word </button>
    </p>

    <p>
        Name: <input type="text" name="text1" id="enteredName" />
    </p>

    <hr />

    <p>
        <a href="http://validator.w3.org/check/referer">
        Validate this HTML5 page
        </a>
    </p>

    <p>
        For full credit, this page must also pass the tests at
        <a href="http://lint.brihten.com/html/">
        http://lint.brihten.com/html/ </a> when its URL is
        entered (and without modifying the default options).
    </p>

</body>
</html>
```