NATIONAL SCHOOL OF BUSINESS MANAGEMENT
BSc in Management Information Systems (Special) – 20.2/ 20.3
BSc (Hons) in Software Engineering – 20.2/ 20.3
BSc (Hons) in Computer Science – 20.2/ 20.3
BSc (Hons) in Computer Network– 20.2/ 20.3

2nd Year 1st Semester Examination
10th June 2022
SE204.3- Development of Enterprise Applications I

Instructions to Candidates

1) **Answer to Part A & B are compulsory <u>AND</u> answer only one question from Part C.**

2) The duration of the question paper is 5 hours. Including half an hour to download the paper and upload your answers in a single file. (Note: **No email submissions are accepted under any condition.)**

3) Weightage of Examination: 60% out of final grade

4) Download the paper, provide answers to the selected questions in a word document.

5) Please upload the document with answers (Answer Script) to the submission link before the submission link expires

6) Answer script should be uploaded in PDF Format

7) Under any circumstances E-mail submissions would not be taken into consideration for marking. Incomplete attempt would be counted as a MISSED ATTEMPT.

8) The Naming convention of the answer script – Module Code_Subject name_Index No

9) You must adhere to the online examination guidelines when submitting the answer script to N-Learn.

10) Your answers will be subjected to Turnitin similarity check, hence, direct copying and pasting from internet sources, friend's answers etc. will be penalized.

Part A

1. Which method is used to send the same request and response objects to another servlet in RequestDispacher ?
   a. forward()
   b. sendRedirect()
   c. Both A & B
   d. None of the above

2. Choose the **correct** statement about the JSP Life Cycle.
   a. JSP page translation does not occur for each request.
   b. Servlet code gets executed in the translation phase.
   c. JSP page is converted to a servlet code in request processing phase.
   d. _jspService() does not accepts requests.

3. How can we retrieve the value of the "User-Agent" header from the request?
   a. String userAgent = request.getParameter("User-Agent");
   b. String userAgent = request.getHeader("User-Agent");
   c. String userAgent = request.getRequestHeader("Mozilla");
   d. String userAgent = getServletContext().getInitParameter("User-Agent");

4. How would you set a header named "CONTENT-LENGTH" in the HTTPResponse object?
   a. response.setHeader(CONTENT-LENGTH, "1024");
   b. response.setHeader("CONTENT-LENGTH", "1024");
   c. response.setStatus(1024);
   d. response.setHeader("CONTENT-LENGTH", 1024);

5. Which of the following code is used to get cookies in servlet?
   a. response.getCookies()
   b. request.getCookies()
   c. Cookies.getCookies()
   d. None of the above

6. Which directive specifies a HTTP response that will be of type "image/svg"?
   a. <%@ page type="image/svg" %>
   b. <%@ page mimeType="image/svg" %>
   c. <%@ page language="image/svg" %>
   d. <%@ page contentType="image/svg" %>

7. Which of the following code retrieves the login of the user making this request?
   a. request.getRemoteUser()
   b. response.getRemoteUser()
   c. Header.getRemoteUser()
   d. None of the above

8. Which is an example of the syntax used to import a class in JSP?
   a. <% page import= "java.util.Date" %>
   b. <%@ page import= "java.util.Date" @%>
   c. <%@ page import= "java.util.Date" %>
   d. <% import java.util.Date; %>

9. Which statement is **true** about <jsp:usebean> action?
    a. The id attribute is optional.
    b. The scope attribute is required.
    c. The scope attribute is optional and default value is request.
    d. The scope attribute is optional.
10. What is the HTML output generated by this line in a JSP file?
    <%-- out.print("Hello World"); --%>
    a. Hello World
    b. out.print("Hello World");
    c. <!-- Hello World -->
    d. No output is generated by this line.

Part B

Question 2   **(Total – 20 marks)**
1. Briefly describe the servlet life cycle using a suitable diagram.   (05 marks)
2. Briefly explain the following request/response headers.   (06 marks)
    a. Referer
    b. Cookie
    c. Accept-Encoding
3. What are Java Beans? List down the four bean scopes.   (04 marks)
4. Briefly describe the MVC architecture.   (05 marks)

Question 3   **(Total – 30 marks)**
1. Write a program to create cookies for your username and password which expires in 2 minutes.
   (5 marks)
2. Write a program to view the cookies that you have created in the above question.
   (5 marks)
3. Write servlet code that instructs the browser to reconnect in every five seconds. Display the time (print new java.util.Date()) on each connection.   (6 marks)
4. Write an example code line to explain the usage of the following JSP Actions.   (9 marks)
    a. <jsp:include>
    b. <jsp:useBean>
    c. <jsp:getProperty>
5. What is the main difference between **JSP Directives** and **JSP Actions**?   (5 marks)

Part C
(Answer only one question from below questions.)

Question 4   **(Total – 30 marks)**

1. Write program to,
   a. Create a form to take the favorite programming language and favorite IDE of the user.
                                                 (10 marks)
   b. Returns a "Page not found" error page (404) unless the user supplies "Java" as the favorite programming language and "NetBeans" as his/her favorite IDE.   **(20 marks)**

   <u>index.jsp</u>

   Favorite Language: [   ]

   Favorite IDE: [   ]

   [**Submit**]

Question 5   **(Total – 30 marks)**

1. Write program to create a user login which,
   a. uses sessions   **(10 marks)**
   b. Checks whether the username is "**Adam**" and password is "**abc123**".   **(10 marks)**
   c. If they match redirects to success.jsp & display "**Hello Adam**".   **(6 marks)**
   d. if not redirects to the login.jsp   **(4 marks)**

   <u>login.jsp</u>

   # Login

   Username :   [   ]

   Password: [   ]

   [**Login**]

   <u>success.jsp</u>

   Hello Adam

---------END OF THE PAPER-------