ADVANCED JAVA & WEB TECHNOLOGY
(INFO 3101)

Time Allotted : 3 hrs   **Full Marks : 70**

Figures out of the right margin indicate full marks.

Candidates are required to answer Group A and
<u>any 5 (five)</u> from Group B to E, taking <u>at least one</u> from each group.

Candidates are required to give answer in their own words as far as practicable.

Group – A
(Multiple Choice Type Questions)

1. Choose the correct alternative for the following: **10 × 1 = 10**

    (i)   HTTP is a _____ protocol.
           (a) stateless   (b) stateful
           (c) statein   (d) stateout

    (ii)   XML is _____ .
           (a) Platform Independent   (b) Language Independent
           (c) Both a & b   (d) None of the above

    (iii) Markup tags tell the web browser
           (a) How to organise the page   (b) How to display the page
           (c) How to display message box on page (d) None of these.

    (iv)   Which of the following technology is not part of J2EE architecture.
           (a) JSP   (b) Servlet
           (c) EJB   (d) CORBA.

    (v)   In JSP Action tags which tags are used for bean development.
           (a) jsp:useBean   (b) jsp:setPoperty
           (c) jsp:getProperty   (d) All mentioned above.

    (vi)   Driver Manager class is a member of _____ package.
           (a) java.util   (b) javax.servlet
           (c) java.io   (d) java.sql

    (vii) Cookies are stored in _____.
           (a) web server   (b) web browser
           (c) application server   (d) database server.

    (viii)   Which two interfaces does the javax.servlet.jsp package have.
            (a) JspPage   (b) HttpJspPage
            (c) PageContext   (d) Both a & b.

    (ix)   Application is an instance of _____ class.
            (a) javax.servlet.Application   (b) javax.servlet.HttpContext
            (c) javax.servlet.Context   (d) javax.servlet.ServletContext

    (x)   DTD stands for _____.
            (a) Document Type Definition   (b) Data Type Definition
            (c) Doc Type Definition   (d) Datum Type Definition.

Group – B

2.   (a)   HTTP is stateless, connection less, media independent protocol---Justify.

      (b)   Write a HTML document to create a student registration form.
          (i)   create text boxes for Name, Address, Phone, Email.
          (ii) create combo boxes to select department.
          (iii) create two radio buttons for Gender specification.
          (iv) create a text area for additional information.
          (v) create username and password for future login.
          (vi) create submit and reset buttons.

(2 + 2 + 2) + 6 = 12

3.   (a)   Explain different types of CSS with example.

      (b)   Write a Java swing program to create a table and store data dynamically. Also display the content of the table.

6 + 6 = 12

Group – C

4.   (a)   What are the advantages of using JavaScript? Describe the techniques of object creation in JavaScript?

      (b)   Why JavaScript is a weakly typed language? Describe the techniques of querying and setting properties of an object in JavaScript?

(2 + 4) + (2 + 4) = 12

5.   (a)   What are the advantages of servlet over CGI. Write a servlet program which will return current date and time.

      (b)   What is web container? Define session and cookie with example.

(2 + 4) + (2 + 4) = 12

Group – D

6. (a) Draw and explain JSP lifecycle. How JSP differs from Servlet?

   (b) Write a JSP code to find out the prime numbers between 1 to N. N must be user input.

   (4 + 3) + 5 = 12

7. (a) Using JSP and JDBC technology to create a student enrollment form which will be submitted after clicking submit button. If there is duplicate entry it will generate an error message, else it will supply user name and password for respective student.

   (b) Briefly describe different types of directives present in JSP.

   8 + 4 = 12

Group – E

8. (a) What is the goal of RMI and how does it differ from RPC? How can we develop a simple RMI program? What do you mean by Stub and Skeleton?

   (b) What is JNI's full form and what purpose does it serve? State the difference between DOM and SAX parser.

   (2 + 2 + 2) + (3 + 3) = 12

9. (a) Create a small XML file designed to contain information about student performance on a module. Each student has a name, a roll number, a subject mark and an exam mark. Create a DTD/Schema capturing that document type..

   (b) Explain briefly different types of XML parser.

   6 + 6 = 12

Department & Section	Submission Link
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