Name : ....

Roll No. : ....

Invigilator's Signature : ....

CS/B.TECH (CSE)/SEM-8/CS-802E/2011

2011
ADVANCED JAVA PRAGRAMMING

Time Allotted : 3 Hours   *Full Marks* : 70

The figures in the margin indicate full marks.

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

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following :

            $10 \times 1 = 10$

   i)   Which HTTP methods are NOT considered idempotent ?

       a)   GET   b)   POST

       c)   HEAD   d)   PUT.

   ii)   Which HTTP methods are used to show the client what the server is receiving ?

       a)   GET   b)   RETURN

       c)   TRACE   d)   OPTIONS.

   iii)   When using a RequestDispatcher, the use of which methods can often lead to an IllegalStateException ?
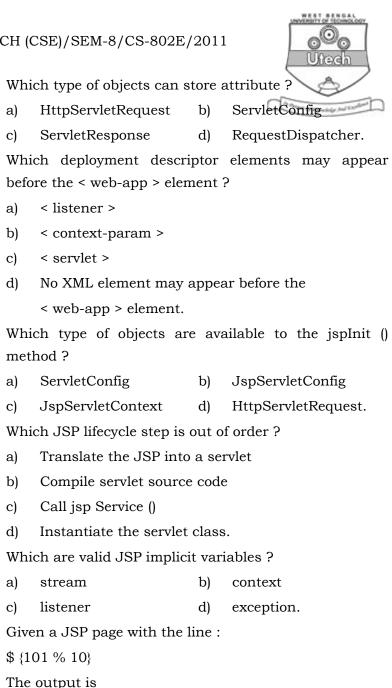
       a)   read   b)   flush

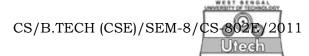   c)   write   d)   getOutputStream.

8306   [Turn over

iv) Which type of objects can store attribute ?

   a) HttpServletRequest   b) ServletConfig

   c) ServletResponse   d) RequestDispatcher.

v) Which deployment descriptor elements may appear before the < web-app > element ?

   a) < listener >

   b) < context-param >

   c) < servlet >

   d) No XML element may appear before the

       < web-app > element.

vi) Which type of objects are available to the jspInit () method ?

   a) ServletConfig   b) JspServletConfig

   c) JspServletContext   d) HttpServletRequest.

vii) Which JSP lifecycle step is out of order ?

   a) Translate the JSP into a servlet

   b) Compile servlet source code

   c) Call jsp Service ()

   d) Instantiate the servlet class.

viii) Which are valid JSP implicit variables ?

   a) stream   b) context

   c) listener   d) exception.

ix) Given a JSP page with the line :

   $ {101 % 10}

   The output is

   a) 1   b) 10

   c) 1001   d) 101 % 10

x) Where should web.xml be stored in a WAR file ?

    a)   In / WEB-INF/classes   b)   In / WEB-INF/lib

    c)   In / WEB-INF   d)   In / META-INF.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.   3 × 5 = 15

2. Explain JINI Technology ? What is JNDI ? What is the significance of it ?   2 + (2 + 1)

3. Explain the use of following JSP tags action elements :

   i) useBean ii) getProperty iii) setProperty.   1 + 2 + 2

4. What is the significance of Entity Bean ? Explain CMP and BMP Entity Bean.   [2 + 3]

5. Briefly explain MVC Architecture. What is the advantage of 3 tier architecture over 2 tier architecture ?   3 + 2

6. What are Servlets ? Briefly explain the various sessions Management Technique available in Servlets.   1 + 4

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.   3 × 15 = 45

7. a) What is the difference between Servlets and CGI ?

   b) What is Servlets API ? Describe the Life cycle of Servlets.

   c) What is Servlets container ? What role does it play ? Briefly define different containers available in Servlets.

                   3 + 2 + 5 + 5

8. a) What is JDBC ? Discuss different types of JDBC Driver available in java.

   b) Give a brief description of the following :

      i) Statement   ii) PreparedStatement   iii) Callable Statement

   c) Write a Java Program, which will display all the records from a database (use JDBC-ODBC bridge driver, Table Name = "EMP" with fields like [empid Number, Ename taxt (10), Salary number]. Assume access database is running in your machine & DSN is TEST)

   2 + 4 + 3 + 6

9. a) What is Enterprise Java Bean ? How does it differ form normal Java Bean ?

   b) What are the types of Bean available in EJB ? Explain in short.

   c) Explain the feature of entity bean ? What are the ways to persist entity bean ?   1 + 2 + 5 + 4 + 3

10. a) What are the differences between JSP and JDBC ?

    b) Describe the Life cycle of JSP

    c) Explain in brief the various tags available in JSP

    d) Describe static, active and dynamic web pages.

    3 + 4 + 5 + 3

11. a) What is XML ? How does it differ from HTML ?

    b) Briefly define the architecture of XML with a neat sketch diagram.

    c) What is the advantage of XML ? Describe the XML schema in brief.   2 + 2 + 5 + 3 + 3