CS/B.TECH(CSE)/SEP.SUPPLE/SEM-8/CS-802E/2012

2012

ADVANCED JAVA PROGRAMMING

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 × 1 = 10

    i)   What is the full form of Java IDL ?
         a)   Internet Definition Language
         b)   Internal Domain Language
         c)   Intranet Definition Language
         d)   Internal Definition Language.

    ii) In MVC architecture, 'view' component are basically
         a)   HTML   b)   JSPs
         c)   EJB   d)   Java Beans.

    iii) Which of the following is an Application Programming
         Interface ?
         a)   JNDI   b)   LDAP
         c)   RMI   d)   JNI.

    iv) Which of the following tools is used to generate the
         stubs and skeletons for a remote service ?
         a)   java   b)   rmiregistry
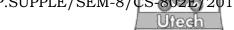   c)   javac   d)   rmic.

SS-412   [Turn over

v) Which of the following is equivalent to the given EJB QL expression for p.age BETWEEN 20 AND 30 ?
   a) p.age ≥ 20 AND p.age ≤ 30
   b) p.age > 20 AND p.age < 30
   c) p.age > 20 AND p.age ≤ 30
   d) p.age ≥ 20 AND p.age < 30.

vi) Which of the following best defines lazy loading of beans ?
   a) Container loads every bean at start
   b) Whole bean is loaded late
   c) Only starts loading on first call of getter methods
   d) None of these.

vii) Which is/are true for XML ?
   a) It is user definable tag
   b) It is content driven
   c) Both (a) and (b)
   d) None of these.

viii) Which of the following packaging options of enterprise beans are recommended for most applications ?
   a) Package all enterprise beans for an application in one EJB module
   b) Package all related enterprise beans for an application in one EJB module
   c) Package each enterprise bean for an application in its own EJB module
   d) None of these.

ix) In webservice terminology SOAP stands for
   a) Simple Object Access Protocol
   b) Simple Object Access Procedure
   c) Standard Object Access Protocol
   d) none of these.

x) Which of the following should not be used to share data between servlets in a distributed web application ?
   a) Attributes of http Session
   b) Database
   c) Attributes of Servlet Context
   d) Enterprise JavaBeans.

GROUP – B

(Short Answer Type Questions)

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

2. a) What is a proxy server ? What is a Firewall ?

   b) How is security achieved in Java ? 2 + 3

3. a) What are the components of J2EE application ?

   b) What is a thin client ?

   c) According to you, are Java Beans J2EE components ? Briefly discuss. 2 + 1 + 2

4. a) What is MVC ? Briefly discuss the reasons why it is used.

   b) What are the implicit objects in JSP ? Give examples.

   3 + 2

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

   b) Compare static webpage and dynamic webpage. 2 + 3

6. What do you mean by DTD and XSD ? Provide suitable examples.

GROUP – C

(Long Answer Type Questions)

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

7. a) Explain Life Cycle of JSP.

   b) What happens when a browser is requesting for a Servlet program ?

   c) Explain JSP plug-in feature with an example. 5 + 5 + 5

8. a) What are the different components of EJB ? Discuss with examples.

   b) Compare JSP and ASP.

   c) Where do we use prepared statement and callable statement ?

   d) Explain Session handling mechanism of Servlet.

   6 + 3 + 3 + 3

9. a) Create an XML document that describes your details in the following hierarchy :

ID :

Name :

       Firstname

       Lastname

Age : Years

       Months

Department :

Phoneno :

       Country code

       Area code

       Phone

  b) Write an XSL to display the details of the above XML document.

  c) Distinguish between SAX and DOM parsing.   6 + 6 + 3

10. a) Describe RMI Layered architecture.

  b) What role does JNDI play in J2EE ?

  c) With the help of an example, explain an LDAP Tree structure. Show how a particular data may be accessed from it.   5 + 4 + 6

11. a) What do you mean by Elements, Template data, Actions in a JSP page ?

  b) What is the difference between Web Server and Application Server ?

  c) Explain JDBC connectivity with an example.   6 + 3 + 6

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