CS/B.Tech/CSE/SEM-8/CS-802E/2013

2013

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)   HTTP is a

         a)   Stateful protocol   b)   Stateless protocol

         c)   both (a) & (b)   d)   none of these.

    ii) The JSP tags are interpreted by

         a)   JSP compiler   b)   JSP debugger

         c)   JSP engines   d)   none of these.

    iii) Driver Manager class is the member of which of the
         following packages ?

         a)   java.util   b)   javax.servlet

         c)   java.io   d)   java.sql

iv) The DOM parser of XML implies

a) Linear parsing   b) Hierarchical parsing

c) both (a) & (b)   d) none of these.

v) Which of the following statements is false ?

a) Any XML sub-element cannot be further subdivided

b) The term DTD is related to XML

c) XML document can include attributes also for a particular sub-element

d) XSL document can include some query representation based on the XML document.

vi) Which of the following mentioned methods is first called during JSP life cycle ?

a) jspInit()   b) _jspService()

c) _jspDestroy()   d) None of these.

vii) JSP document is compiled into

a) ASP   b) Servlet

c) XML   d) JAXB.

viii) What is the full form of IDL ?

a) Internet Definition Language

b) Internet Domain Language

c) Definition Interface Language

d) Intranet Derivation Language.

ix) Which of the following tools is used to generate the stubs and skeletons for a remote service ?

a) javac   b) jdk

c) XSL   d) rmic.

x)   Which of the following methods is called first and only once, when a new applet is first loaded ?

a)   start   b)   paint

c)   init   d)   stop.

GROUP – B
(Short Answer Type Questions)
Answer any *three* of the following.   3 × 5 = 15

2.   What do you mean by Servlet ? What are the different steps involved in the Servlet life cycle ?   2 + 3

3.   Briefly discuss the MVC architecture. What is the advantages of 3-tier architecture over 2-tier architecture ?

3 + 2

4.   Discuss the main steps involved in the JSP life cycle. Compare the roles of JSP and Servlet.   3 + 2

5.   What do you mean by JNDI ? What is the significance of DTD in XML document ? What is the full form of JAXB ?

2 + 2 + 1

6.   What is JDBC ? What are the different types of JDBC Drivers that are available in java ?   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 ? Explain.   3

b)   What are the static, dynamic and active web pages ?   3

c)   Explain the various tags available in JSP.   5

d)   Discuss the role of doGet() and doPost() methods in short.   2 + 2

8. a) What do you mean by XML ? Are there any advantages of using XML ? Explain. 2 + 3

   b) What is XSL ? Compare the functionalities of SAX and DOM parsers in XML ? 2 + 3

   c) Write one example of an XML document with root element, sub-element as well as its attribute and also indicate these items. 3

   d) Is there any difference between XML schema and XML DTD ? Explain. 2

9. a) What do you mean by EJB ? How is it different from nomral Java Bean ? 2 + 3

   b) Briefly discuss the different types of Beans that are available in EJB. 5

   c) Discuss some of the services of the EJB container. 5

10. a) Explain the RMI procedure involving the different steps with a diagram. 5

    b) Discuss the different layers of RMI architecture. 5

    c) What do you mean by CORBA ? Compare Java RMI and CORBA. 2 + 3

11. Write short notes on any *three* of the following : 3 × 5

    a) J2EE *n*-tier architecture

    b) RMI registry

    c) JAXP and JAXB

    d) CORBA architecture

    e) COOKIES.