



Name :

Roll No. :

Invigilator's Signature :

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 : $10 \times 1 = 10$
 - 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.

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

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

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. $3 \times 15 = 45$

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.

 $6 + 3 + 3 + 3$

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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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