

Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/B.Tech (CSE)/SEM-8/CS-802E/2010**

**2010**

**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) The use of a DTD in XML development is
  - a) required when validating XML documents
  - b) no longer necessary after the XML editor has been customized
  - c) used to direct conversion using an XSLT processor
  - d) a good guide to populating a templates to be filled in when generating an XML document automatically.
- ii) Which of the following is not a transaction isolation level in EJB ?
  - a) Transaction \_ read \_ uncommitted
  - b) Transaction \_ read \_ committed
  - c) Transaction \_ repeatable \_ read
  - d) Transaction \_ synchronous.

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[ Turn over

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- iii) **DOM stands for**
- a) **Domain Object Model**
  - b) **Document Object Model**
  - c) **Document Oriented Methodology**
  - d) **Domain Oriented Markup.**
- iv) **What is the initial contact point for handling a web request in a Page-centric architecture ?**
- a) **A JSP Page**
  - b) **A JavaBean**
  - c) **A Servlet**
  - d) **A session Manager.**
- v) **Entity beans that have container-managed relationships with other entity beans, must be accessed in the same ..... scope as those related beans to provide a local client view.**
- a) **local**
  - b) **global**
  - c) **logical**
  - d) **physical.**
- vi) **Scaling of an application to increase availability and throughput is called**
- a) **Mapping**
  - b) **Transforming**
  - c) **Clustering**
  - d) **Optimizing.**
- vii) **Main purpose of XML is**
- a) **to reuse data**
  - b) **to save and transport data**
  - c) **to make connection between data**
  - d) **none of these.**

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- viii) Which of the following is true ?
- a) doGet () has higher data transfer capacity than doPost ()
  - b) doPost () and doGet () has same data transfer capacity
  - c) doPost () has unlimited data transfer capacity whereas doGet () has limited data transfer capacity
  - d) doGet() has unlimited data transfer capacity whereas doPost () has limited data transfer capacity.
- ix) Stub is a member to which of the following technologies ?
- a) JINI
  - b) JDO
  - c) JAXB
  - d) RMI.
- x) Which of the following JDBC driver types is called "native" ?
- a) Type 2
  - b) Type 1
  - c) Type 4
  - d) Type 1.

**GROUP - B**

**( Short Answer Type Questions )**

Answer any *three* of the following,  $3 \times 5 = 15$

2. What is Servlet ? How is it different from CGI technology ?  
2 + 3
3. Critically compare between JSP and Servlet. Discuss the main features of the life cycle of JSP.  
2 + 3
4. What is the difference between Message Driven beans and Stateless Session beans ?
5. Explain layer architecture of RMI. Does RMI-IIOP support dynamic downloading of classes ? Justify your answer. 3 + 2
6. What is a directory service ? How to use LDAP to work with a directory service ?  
2 + 3

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**GROUP - C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. a) Define HTTP Tunneling. 3  
b) Explain how servlets differ from RMI. Explain the advantages and disadvantages of each technology. 7  
c) Describe different types of servlet collaboration. 5
8. a) Explain the 3 main components of MVC architecture, i.e., Model, view and controller. 6  
b) Explain the difference between DOM and SAX. 4  
c) What is the difference between Java Bean and Enterprise Java Bean ? 5
9. a) What makes J2EE suitable for distributed multitiered Applications ? 5  
b) Explain JTA and JTS in brief. 5  
c) What are implicit objects in JSP ? What is the difference between forward and send Redirect ? 5
10. a) What is JDO ? How is it different from Value Object ? 5  
b) What is the difference between Bean Factory and Application context ? 5  
c) How does EJB invocation happen ? 5
11. Write short notes on any *three* of the following :  $3 \times 5$ 
  - a) JAXP and JAXB
  - b) JNDI
  - c) Significance of JINI in web Application
  - d) n-tier architecture
  - e) FAT controller.