



Name :

Roll No. :

Invigilator's Signature :

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

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- 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`.

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- 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. $3 \times 5 = 15$

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. $3 \times 15 = 45$

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|----|----|---|-------|
| 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 |

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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 normal 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.
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