Adv. Java

Q.P. Code : **14598**

(2½ Hours) [Total Marks : 75

N.B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.
(3) Illustrations, in-depth answers and diagrams will be appreciated.
(4) Mixing of sub-questions is not allowed.

Q1.   **Attempt the following (any THREE):**   15
(A) Write a short note on life cycle of a Servlet.
(B) Explain any four methods of HttpServletRequest interface.
(C) What is the role of a Filter in Servlets? Explain various parameters of doFilter() method.
(D) Write a Servlet which accepts EMPNO, NAME and CONTACTNO sent from a HTML document (employee.html) and display them on screen. Also give the code for employee.html document.
(E) Write a Servlet file which will display if a number N is prime or not. Number N is accepted from prime.html.
(F) Write a Servlet which allows user to add new records to a table 'unmpwd'. Values for username and password are passed through HTML.

Q2.   **Attempt the following (any THREE):**   15
(A) Explain how control can be transferred from JSP to another web component with code snippet.
(B) Explain error handling mechanism in JSP with code snippet.
(C) Explain jsp:useBean tag with example.
(D) Write a short note on Unified Expression Language.
(E) Write a Java Server Page to display current date. Also display the counter showing number of times the JSP was requested.
(F) Write a Java Server Page which displays value of m to the power of n (m^n) where m and n are accepted from numbers.html.

Q3.   **Attempt the following (any THREE):**   15
(A) What is Enterprise Java Bean? Explain any four benefits of EJB.
(B) State the difference between Java Beans and EJB.
(C) State the contents of Enterprise Bean. Also state their naming conventions.
(D) What are various ways of passing parameters in EJB?
(E) Differentiate between Session Bean and Message Driven Bean.
(F) What is MessageListener? Also explain onMessage() method.

Q4.   **Attempt the following (any THREE):**   15
(A) What factors should be considered before giving local or remote access to beans?
(B) What are the characteristics of a Remote Client of an Enterprise Bean? What are the different ways to create an enterprise bean that allows remote access?

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(C) State and explain callback methods of Stateless Session Bean.
(D) Explain the use of (i) @WebMethod (ii) @WebParam.
(E) Explain the following terms:
  (i) SOAP, (ii) UDDI and (iii) WSDL.
(F) Write a web service method that accepts a number n and returns the value of 1+2+3+...+n.

Q5.   **Attempt the following (any THREE):**   15
(A) Differentiate between GenericServlet and HttpServlet.
(B) Explain any five JSP elements.
(C) What are implicit objects? State and explain any four.
(D) Explain the life cycle of Stateful Session Bean.
(E) What are annotations? Explain any two annotations used for developing EJB.
(F) Write a short note on JAX-WS technology.