CBCS SCHEME

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20MCA33

Third Semester MCA Degree Examination, Feb./Mar. 2022
Advances in Java

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module – 1

1 a. Explain briefly servlet architecture and life cycle method. **(10 Marks)**
   b. Write a JAVA servlet program which reads two parameters from the web page say value 1, value 2, which are of type integers, and finds the sum of the two values and return bock the result as a webpage. **(06 Marks)**
   c. Write any four difference between GET and PSOT request. **(04 Marks)**

OR

2 a. Explain briefly any five methods of HttpServletRequest. Illustrate it with a simple program. **(10 Marks)**
   b. Write a JAVA Servlet program using cookies to remember user preferences. **(06 Marks)**
   c. Explain briefly advantages of servlet over CGI. **(04 Marks)**

Module – 2

3 a. Explain the following tags with an example :
      i) Declaration   ii) Scriptlet   iii) Expression   iv) Comment. **(10 Marks)**
   b. With a neat diagram, explain JSP architecture and life cycle phases of JSP. **(10 Marks)**

OR

4 a. Explain briefly any five JSP implicit object. **(10 Marks)**
   b. Explain briefly three life cycle methods of JSP. **(06 Marks)**
   c. Write a JSP program to perform arithmetic operation using scriptlet, declaration and expression tag. **(04 Marks)**

Module – 3

5 a. Explain briefly any 10 attributes of JSP page directive tag. **(10 Marks)**
   b. Write a JSP program which uses <jsp:include> and <jsp:forward> standard action to display a webpage. **(10 Marks)**

OR

6 a. Explain the following standard action with suitable example.
      i) <jsp:useBean>   ii) <jsp:plugin>. **(10 Marks)**
   b. Write a JSP program to get students information through a HTML and create a JAVA bean class populate bean and display the same information through another JSP. **(10 Marks)**

Module – 4

7 a. Explain briefly any 5 builtin annotation with a suitable example. **(10 Marks)**
   b. Explain briefly JDBC routine process. Give an example. **(10 Marks)**

OR

8 a. Discuss any five advanced JDBC data types. **(10 Marks)**
   b. Discuss the types of JDBC statements with an example. **(10 Marks)**

Module – 5

9 a. With a neat diagram explain the life cycle of stateful ession bean. (10 Marks)
b. Explain briefly stateless, stateful and singleton session bean. (06 Marks)
c. List out the differences between stateless and stateful session bean. (04 Marks)

OR

10 a. Write a short note on :
   i) Dependency injection
   ii) Instance pooling
   iii) Transactions
   iv) Security. (10 Marks)
b. With a neat diagram, explain the life cycle of Entity bean. (10 Marks)

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Module – 5

9 a. With a neat diagram explain the life cycle of stateful ession bean. (10 Marks)
   b. Explain briefly stateless, stateful and singleton session bean. (06 Marks)
   c. List out the differences between stateless and stateful session bean. (04 Marks)

OR

10 a. Write a short note on :
      i)   Dependency injection
      ii) Instance pooling
      iii) Transactions
      iv) Security. (10 Marks)
    b. With a neat diagram, explain the life cycle of Entity bean. (10 Marks)

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