USN | | | | | | | | | | | **18CS644**

Sixth Semester B.E. Degree Examination, June/July 2024
Advanced Java in J2EE

Time: 3 hrs.   Max. Marks: 100

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

Module-1

1 a. Describe fundamentals of enumeration and write example for enumeration using switch statement. **(10 Marks)**
   b. Explain basic concepts of wrapper with example. **(06 Marks)**
   c. Define the following terms:
      i)   Boxing and Unboxing
      ii) Annotation and Marker annotation. **(04 Marks)**

OR

2 a. Explain following builtin annotation with java code.
      i) @Target   ii) @Supress Warnings. **(06 Marks)**
   b. Illustrate auto-boxing, auto-unboxing with example and their benefits. **(10 Marks)**
   c. List the types of annotation and give definition of each. **(04 Marks)**

Module-2

3 a. Describe four interfaces of collection framework with example and syntax of any two methods of each interface. **(10 Marks)**
   b. What are the needs of ArrayList? Describe ArrayList class with simple example. **(06 Marks)**
   c. List goals of collection frameworks. **(04 Marks)**

OR

4 a. Implement a java LinkedList collection of strings to demonstrate functionalities of add( ), addFirst( ), addLast( ) and remove element from specified position. **(08 Marks)**
   b. Explain HashMap and TreeMap classes of Map interface with syntax and example. **(08 Marks)**
   c. List legacy classes of collection framework and give definition of any three of them. **(04 Marks)**

Module-3

5 a. Create a java program to illustrate string modifications using following methods:
      i) substring( )   ii) concat( )   iii) replace   iv) trim. **(08 Marks)**
   b. Explain different methods of extracting character from the string object with syntax and examples. **(08 Marks)**
   c. Write a note on Equals( ) and = = assignment operator. **(04 Marks)**

OR

6 a. Describe valueof( ) method and methods to change case of character. (08 Marks)
   b. With syntax a example explain StringBuffer and the followings:
       i)   length( )
       ii)   capacity( )
       iii) append( ) and insert( )
       iv)   delete( ) and deleteCharAt( ) (08 Marks)
   c. Differentiate between String and StringBuffer. (04 Marks)

Module-4

7 a. Describe steps to built and test simple servlet with necessary code snippet. (08 Marks)
   b. Develop a java program to read servlet parameters. (08 Marks)
   c. Write a note on cookie class with example. (04 Marks)

OR

8 a. Illustrate HTTP request and responses with necessary code snippet. (10 Marks)
   b. Define JSP and explain JSP with two types of control statements example. (06 Marks)
   c. Give differences between servlet and JSP. (04 Marks)

Module-5

9 a. Explain the different steps of JDBC process with code snippet for each step. (10 Marks)
   b. With proper syntax describe three types of getConnection( ) method. (06 Marks)
   c. List JDBC exceptions and brief any one of the exception. (04 Marks)

OR

10 a. Create a java program to connect to database with following information:
        Driver : JDBC/ODBC bridge.
        URL: "jdbc/odbc:Ex"
        Username: "orcl"
        Password: "tiger"
        Retrieve all rows with salary >20,000. Assume following table:
        Table Name: EMPLOYEE
        Fields:
            EMP_ID INT (20)
            EMP_NAME VARCHAR (20),
            SALARY INT (20). (08 Marks)
    b. Explain transaction processing with necessary example. (08 Marks)
    c. Write a note on Metadata Interface. (04 Marks)

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