CBCS SCHEME

USN ☐☐☐☐☐☐☐☐☐☐   18CS644

Sixth Semester B.E. Degree Examination, Dec.2023/Jan.2024
Advanced Java and J2EE

Time: 3 hrs.   Max. Marks: 100

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

Module-1

1 a. Define Enumerations. Develop a Java program to implement the following built-in methods and explain : (i) values( ) (ii) valueOf( ) (iii) ordinal( ) (vi) compareTo( ) (v) equals( ) **(10 Marks)**
   b. What is Wrapper class? Explain the following with examples :
      (i)   Boxing
      (ii) Un-Boxing
      (iii) Auto-boxing
      (iv) Auto-unboxing **(10 Marks)**

OR

2 a. What are annotations? Explain the following Built-in annotations with examples:
      (i)   @Override
      (ii) @Inherited
      (iii) @Retention
      (iv) @Supress Warnings **(10 Marks)**
   b. Explain the following with respect to annotations :
      (i) Single member annotations.
      (ii) Default values in annotations. **(10 Marks)**

Module-2

3 a. What is collection frame work? Explain the methods defined by the following interfaces :
      (i)   Collection
      (ii) List
      (iii) Sorted Set
      (iv) Queue **(10 Marks)**
   b. Explain how collections can be accessed using an iterator with example. **(06 Marks)**
   c. Explain HashMap with example. **(04 Marks)**

OR

4 a. Explain the following collection classes by constructing a JAVA program :
      (i)   Linked List
      (ii) Array List
      (iii) Tree Set
      (iv) Hash Set **(10 Marks)**
   b. What is Legacy classes? Explain the different Legacy classes with a Java Program. **(10 Marks)**

Module-3

5 a. What is string in Java? Explain the different constructors of string class. Also list the difference between String Class and String Buffer class. **(10 Marks)**

   b. Explain the difference between equals and = = with example. **(05 Marks)**

   c. Explain how to check the occurance of a substring in a given string. **(05 Marks)**

OR

6 a. Explain the following built in methods with respect to string buffer class :
   - (i)   capacity ( )
   - (ii)   delete ( )
   - (iii) replace ( )
   - (iv)   append ( )
   - (v)   substring ( ) **(10 Marks)**

   b. Explain any two character handling functions in string class. **(04 Marks)**

   c. Write a java program to sort names in Bubble sort. **(06 Marks)**

Module-4

7 a. Explain the life cycle of servlet. **(06 Marks)**

   b. Write a Servlet program to accept parameter from HTML (username & password) and display. **(08 Marks)**

   c. Explain the role of Tomcat server in servlets. **(06 Marks)**

OR

8 a. List the difference between JSP and Servlet. Also explain the different JSP tags with example. **(10 Marks)**

   b. Explain sessions and cookies in JSP. **(06 Marks)**

   c. How arrays are defined in JSP? **(04 Marks)**

Module-5

9 a. What is JDBC? Explain the different JDBC driver types. **(10 Marks)**

   b. What is statement object in JDBC? Explain the following statement objects with example :
   - (i)   Preparedstatement
   - (ii)   CollableStatement **(10 Marks)**

OR

10 a. Explain ScrollableResultSet and UpdatableResultSet object in JDBC. **(10 Marks)**

   b. Explain transaction processing in JDBC. **(06 Marks)**

   c. Explain the types of exceptions occurred in JDBC. **(04 Marks)**

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