Fifth Semester B.E. Degree Examination, Aug./Sept. 2020
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. Compare and contrast auto boxing and unboxing in Java with an example. **(06 Marks)**
   b. Build a Java program to create an enumeration class of seasons and demonstrate usage of values ( ) and valueOf ( ) methods. **(08 Marks)**
   c. What is an Annotation? Explain various retention policies for annotation in Java. **(06 Marks)**

OR

2 a. Explain the following methods of java.lang.Enum with an example
      i)   Ordinal ( )
      ii) compareTo ( )
      iii) equals ( ) **(06 Marks)**
   b. What do you mean by Type Wrapper? Explain numeric type wrapper with an example. **(06 Marks)**
   c. Explain the following Built-in Annotations with a Java code i) Override   ii) Inherited iii) Retention. **(08 Marks)**

Module-2

3 a. What is collection framework? Explain any four methods defined by the collection interface. **(10 Marks)**
   b. Define legacy class -- vector with syntax declaration and demonstrate various vector operations. **(06 Marks)**
   c. Explain the constructors of TreeSet with example. **(04 Marks)**

OR

4 a. Create a class EMPLOYEE with two private string members: employee_id, employee_Name. Using LinkedList class, develop a Java program to add atleast 3 objects of above EMPLOYEE class and display the data in neat format. **(08 Marks)**
   b. Demonstrate ArrayList class for collection with an example. **(06 Marks)**
   c. Write the syntax declaration of Queue interface and explain any four methods defined by Queue. **(06 Marks)**

Module-3

5 a. Define String. Explain the different ways constructing string object. **(06 Marks)**
   b. Explain and make use of the following string handling methods to modify a string.
      i)   substring ( )
      ii) concat ( )
      iii) replace ( )
      iv) trim ( ) **(08 Marks)**
   c. Develop a Java program to count the occurrence of character in a given string. **(06 Marks)**

OR

6   a. Differentiate between string and string Buffer explain reverse ( ) method of stringBuffer with an example.   **(08 Marks)**
    b. Explain the following character extraction methods : i) charAt( )   ii) to charArry( ) .
                                                                              (06 Marks)
    c. Explain insert ( ) and append ( ) stringBuffer methods with an example.   **(06 Marks)**

Module-4

7   a. Explain the life cycle of a servlet.   **(04 Marks)**
    b. Write a Java Servlet program to accept two parameters from webpage, find the sum of them and display the result in webpage. Also give necessary html script to create web page.
                                                                              (10 Marks)
    c. Explain how cookies can be handled using servlets.   **(06 Marks)**

OR

8   a. Define JSP. Explain the different types of JSP tags by taking suitable example.   **(10 Marks)**
    b. What are Cookies? How Cookies are handled in JSP? Write a program create with name "Username" and Cookie value "abc". Also display stored Cookie in webpage.   **(10 Marks)**

Module-5

9   a. Explain the different step involved in JDBC process with a code snippet.   **(08 Marks)**
    b. Explain the four types of JDBC drivers.   **(08 Marks)**
    c. List and explain the three kinds of exceptions occurred in JDBC.   **(04 Marks)**

OR

10 a. Write a program to connect to database with following information:

        Driver   : JDBC/ODBC bridge
        URL   : "jdbc.odbc:Ex"
        username   : "xyz"
        passward   : "123"
        Retrieve all rows with marks > 60.
        Assume the following table :
        Table Name : STUDENT
        Fields   : USN_Varchar (20), Marks_int, Name_Varchar (25)
                                                                              (10 Marks)
    b. Explain the different types of statement object with example.   **(06 Marks)**
    c. Discuss the Scrollable Result set in JDBC.   **(04 Marks)**

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