CBCS SCHEME

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18CS644

Sixth Semester B.E. Degree Examination, July/August 2022
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. What are enumerations? Explain values( ) and valueOf( ) methods with example program. (08 Marks)
   b. What is autoboxing? Write a Java program that demonstrates autoboxing/unboxing occurs inside expressions. (06 Marks)
   c. What are annotations? Explain the following built-in annotations:
      (i) override   (ii) inherited   (iii) retention (06 Marks)

OR

2 a. Explain the various type wrappers used in Java. (08 Marks)
   b. Explain the following methods of Java.lang.Enum with example:
      (i) ordinal   (ii) compareTo   (iii) equals( ) (08 Marks)
   c. Demonstrate marker annotations with example. (04 Marks)

Module-2

3 a. What is collection framework? Explain the methods define by the collection interface. (07 Marks)
   b. Demonstrate ArrayList class collection with an example. (06 Marks)
   c. Explain any four legacy collection of framework. (07 Marks)

OR

4 a. Explain the following map classes: (i) HashMap   (ii) TreeMap (08 Marks)
   b. Explain ArrayList class and explain the following methods:
      (i) binarySearch   (ii) copy   (iii) equals   (iv) fill (08 Marks)
   c. Explain Queue interface. List different methods defined in Queue. (04 Marks)

Module-3

5 a. What is string in Java? Write a Java program that demonstrates any four constructors of String class. (08 Marks)
   b. Explain the following StringBuffer methods with an example:
      (i) insert   (ii) append   (iii) replace   (iv) substring (08 Marks)
   c. Differentiate between equals( ) and = = with respect to string comparison. (04 Marks)

OR

6 a. Explain the following StringBuffer class with examples:
      (i) capacity( )   (ii) reverse( )   (iii) charAt( )   (iv) deleteCharAt( ) (08 Marks)
   b. Write a program to remove duplicate characters from a given string and display the resultant string. (08 Marks)
   c. How compareTo( ) method differs from compareToIgnoreCase ( ) method? (04 Marks)

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Module-4

7 a. Explain the life cycle of Servlet. (06 Marks)
   b. Explain the difference between servlets and CGI programs. (06 Marks)
   c. Describe the core interfaces that are provided in Javax.Servlet.http package. (08 Marks)

OR

8 a. What is JSP? Explain the various types of JSP tags with examples. (10 Marks)
   b. What are cookies? How cookies are handled in JSP? Write a JSP program to create and read a cookie. (10 Marks)

Module-5

9 a. What are database drivers? Explain the different JDBC driver types. (06 Marks)
   b. Describe the various steps of JDBC with code snippets. (10 Marks)
   c. Write any two syntax of established a connection to a database. (04 Marks)

OR

10 a. What is connection pooling? Explain connection pooling with neat diagrams with code snippets. (10 Marks)
   b. Describe the following concepts:
      (i)   Scrollable result set
      (ii) Callable statement
      (iii) Transaction processing
      (iv) Updatable result set (10 Marks)

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