

# CBCS SCHEME

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17CS553

## Fifth Semester B.E. Degree Examination, Jan./Feb. 2023 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 boxing and unboxing in JAVA with an example. (06 Marks)
- b. What is an annotation? Explain various retention policies for annotation in JAVA. (06 Marks)
- c. Build a JAVA program to create an enumeration class of seasons and demonstrate usage of values() and valueOf() methods. (08 Marks)

OR

- 2 a. Explain how to obtain annotations at run time by use of reflection. (10 Marks)
- b. Explain the following methods of java.lang.Enum with an example program:  
(i) ordinal() (ii) compareTo (iii) equals() (10 Marks)

### Module-2

- 3 a. Define collection framework. Explain the methods defined by collection interface. (10 Marks)
- b. Explain any four legacy classes of java's collection framework. (10 Marks)

OR

- 4 a. Explain the constructors of tree set with an example. (06 Marks)
- b. Demonstrate array list class for collection with an example. (06 Marks)
- c. Write the declaration syntax of queue interface and explain any four methods defined by queue. (08 Marks)

### Module-3

- 5 a. Explain the following string handling methods:  
(i) substring() (ii) concat() (iii) replace (iv) trim() (08 Marks)
- b. Develop a java program to count the occurrence of character in a given string. (06 Marks)
- c. Define string. Explain the different ways of constructing string object. (06 Marks)

OR

- 6 a. Explain the following character extraction methods:  
(i) charA+() (ii) toCharArray() (06 Marks)
- b. Differentiate String and StringBuffer Class. Explain reverse() method of string buffer class with example. (08 Marks)
- c. Explain insert() and append(), String Buffer methods with an example. (06 Marks)

### Module-4

- 7 a. Write a java servlet program that demonstrates how parameters can be accessed from HTML. (10 Marks)
- b. Differentiate servlets and CGI programs. (05 Marks)
- c. Explain any two cookies methods. (05 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8 = 50, will be treated as malpractice.

17CS553

OR

- 8 a. List and explain core classes and interfaces in javax.servelet.package. (10 Marks)  
b. Define JSP. Explain different types of JSP tags with suitable examples. (10 Marks)

Module-5

- 9 a. With neat diagram, explain the different types of JDBC drivers. (10 Marks)  
b. Explain the various steps of JDBC with code snippets. (10 Marks)

OR

- 10 a. Write a java program to connect to database using URL and to connect database using user ID and password. (10 Marks)  
b. Describe the following concepts:  
(i) Scrollable ResultSet  
(ii) Callable statement  
(iii) Transaction Processing  
(iv) Updatable ResultSet (10 Marks)

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