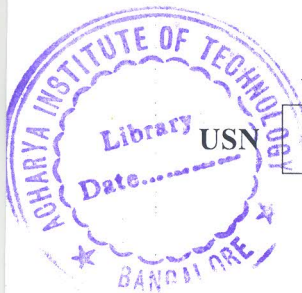


# CBCS SCHEME



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15CS553

## Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Advanced JAVA and J2EE

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. What is enum? With a program, explain how enumeration is used as class. (09 Marks)
- b. What is autoboxing? Write a program to illustrate how auto boxing occurs in methods and explain briefly. (07 Marks)

OR

- 2 a. What are annotations? List different built-in annotations. Explain any one. (04 Marks)
- b. Define Marker annotation and single member annotation with an example. (04 Marks)
- c. Write a program to obtain annotations at runtime by use of reflection. (08 Marks)

### Module-2

- 3 a. What is collection framework? Explain collection interface and its methods. (08 Marks)
- b. Write a java program to create an ArrayList of objects of type string. Add any five strings, display size and contents of list. Remove any two strings and display size and contents. (08 Marks)

OR

- 4 a. Write a note on TreeMap class. (06 Marks)
- b. What are comparators? Explain briefly. (05 Marks)
- c. Explain vector class with an example. (05 Marks)

### Module-3

- 5 a. What is string? Explain different string constructors. (07 Marks)
- b. Write a java program to sort array of strings using compareTo() function. (05 Marks)
- c. Write a short note on replace() and substring() methods of StringBuffer class. (04 Marks)

OR

- 6 a. Write a program in java to replace all the matching substring with a given string. (06 Marks)
- b. Explain indexOf() and lastIndexOf() methods of string class with an example. (05 Marks)
- c. Write a note on charAt() and setCharAt() functions of StringBuffer class. (05 Marks)

### Module-4

- 7 a. Explain Servlet life cycle with an example. (05 Marks)
- b. Define Cookie. Write a Servlet program to add a cookie. (08 Marks)
- c. List different classes and interfaces of javax.servlet package. (03 Marks)

OR

- 8 a. What is JSP? Explain different types of JSP tags. (10 Marks)
- b. What is session? Explain how to create session attribute using JSP. (06 Marks)

### Module-5

- 9 a. Describe the various steps of JDBC with code snippets. (10 Marks)
- b. Write a note on Database Metadata and ResultSet metadata. (06 Marks)

OR

- 10 a. Write a note on different types of drivers. (04 Marks)
- b. What is ResultSet? How to make ResultSet Scrollable. (04 Marks)
- c. Write a Java program to execute database transaction. (08 Marks)

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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.