

## Seventh Semester B.E. Degree Examination, June/July 2019

## Java and J2EE

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting atleast TWO questions from each part.

## PART – A

- 1 a. Explain three kinds of variables in Java. (06 Marks)
- b. What are arrays? List out the three steps to create an array. (04 Marks)
- c. Describe the process of building and running Java program with an example. (04 Marks)
- d. Discuss different access specifiers in Java. (06 Marks)
- 2 a. Define an Applet. Explain the skeleton of an applet with example program. (08 Marks)
- b. Explain the types of exceptions in Java. (06 Marks)
- c. What is difference between a superclass and subclass? Write a program to demonstrate the same. (06 Marks)
- 3 a. What are threads? Explain how to make the class threadable. (07 Marks)
- b. What is synchronization? Explain producer consumer problem with a program. (09 Marks)
- c. Write short notes on sources of events. (04 Marks)
- 4 a. What are swing components? Explain atleast 4 swing components. (06 Marks)
- b. What are containers? Explain a simple container. (06 Marks)
- c. Write a short note on : (08 Marks)
  - i) JTabbedPane
  - ii) JScrollPane
  - iii) JList
  - iv) JComboBox.

## PART – B

- 5 a. Explain JDBC process in detail. (12 Marks)
- b. Write a short notes on :
  - i) J2EE
  - ii) J2SE
  - iii) ResultSet
  - iv) ResultSetMetaData. (08 Marks)
- 6 a. Explain the difference between the applet and servlet. (04 Marks)
- b. With a diagram, explain servlet life cycle. (08 Marks)
- c. With a program, explain handling HTTP requests and responses. (08 Marks)
- 7 a. Why we use JSP? Explain JSP tags. (08 Marks)
- b. Explain Apache Tomcat with example program. (06 Marks)
- c. Write a short notes on :
  - i) Session and cookies in JSP
  - ii) RMI. (06 Marks)
- 8 a. What is EJB? Explain three types of EJB that are suited to different purposes. (07 Marks)
- b. Explain session beans with an example program. (05 Marks)
- c. What are JAR file? Explain the benefits of JAR file format. (08 Marks)

CMRIT LIBRARY  
BANGALORE - 560 037

\*\*\*\*\*