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**Seventh Semester B.E. Degree Examination, Aug./Sept. 2020**  
**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. Briefly explain any six buzzwords used for designing Java program. (05 Marks)  
 b. With an example, explain the working of >> and >>> operators. (05 Marks)  
 c. Explain the process of building and running a java application program. (05 Marks)  
 d. Write a program to calculate the average among the elements {1, 5, 7, 9} using for each version of for statement in Java. (05 Marks)
- 2 a. Explain the concept of method overriding with an example. (07 Marks)  
 b. What is command – line arguments? Write a program to demonstration command line arguments. (07 Marks)  
 c. What are the two types of applets? Explain the skeleton of on applet. (06 Marks)
- 3 a. What are the two methods of creating a new thread. Write a program to create a new thread using any method to display 'VTU Belgaum' and display it for 1 second. (08 Marks)  
 b. What do you mean by thread synchronization? Explain with syntax. (08 Marks)  
 c. Explain the adaptor classes with example. (04 Marks)
- 4 a. Name the different types of swing buttons. Give their syntax of corresponding constructors. (06 Marks)  
 b. Explain the various constituents of swing package. (06 Marks)  
 c. How AWT is different from swing? What are two key features of swing and explain. (08 Marks)

**PART – B**

- 5 a. Explain J2EE multitier architecture. (08 Marks)  
 b. With proper syntax, explain three types of getConnection method. (08 Marks)  
 c. Write a note on result set. (04 Marks)
- 6 a. What is servlet? Explain life cycle of servelste. (07 Marks)  
 b. What is a cookie? List the various methods defined by cookie. (07 Marks)  
 c. Describe in detail, how tomcat web server is configured for development of servlet. (06 Marks)
- 7 a. What is the difference between sevlets and JSP? Explain different types of JSP tags with syntax. (06 Marks)  
 b. Briefly explain the working of JAVA RMI programs with appropriate steps. (08 Marks)  
 c. What are the differences between server side and client side JAVA RMI? (06 Marks)
- 8 a. Explain various EJB transaction attributes. (07 Marks)  
 b. With a skeleton explain session java bean. (07 Marks)  
 c. Write a note on JAR file. (06 Marks)

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