

**MASTER OF SCIENCE (COMPUTER SCIENCE) (CBCS-2018 COURSE)**  
**M.Sc. (Computer Science) Sem-II :SUMMER- 2022**  
**SUBJECT : JAVA APPLICATION PROGRAMMING**

Day : Thursday  
Date : 7/7/2022

**S-20045-2022**

Time : 03:00 PM-06:00 PM  
Max. Marks : 60

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**N.B.**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
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**Q.1** Write Java Socket Program that runs on Server, accepts a message from client and returns Client's communication Port number. Also write Java Socket Program to display an appropriate message after connecting to Server. **(15)**

**OR**

Elaborate the RMI architecture in detail. Also explain the concept of distributed computing using RMI.

**Q.2 A)** Answer **ANY ONE** of the following **(08)**

- i) Explain JDBC MetaData. Also explain transaction management in JDBC
- ii) Write a Java code to insert student details in "student" table by using PreparedStatement.

**B)** Answer **ANY ONE** of the following **(07)**

- i) Draw and explain Model-View-Controller (MVC) Architecture. Discuss Struts application framework.
- ii) Elaborate various drivers used for JDBC.

**Q.3** Answer **ANY THREE** of the following **(15)**

- a) Differentiate between TCP and UDP.
- b) What is savepoint in JDBC? Explain its importance.
- c) Write a program to use commit() and rollback() methods of Connect Object.
- d) Explain Scrollable ResultSet in JDBC.
- e) Explain the role of RMI in remote method invocation.

**Q.4** Write a Note on (**ANY THREE**) **(15)**

- a) EJB
- b) Session Tracking
- c) Java Naming and Directory Interface (JNDI)
- d) HTTP Redirect
- e) J2EE

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