

(i) Printed Pages: 3

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(ii) Questions : 9

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Exam. Code : 

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**M.Sc. Information Technology 2<sup>nd</sup> Semester  
(2042)**

**ADVANCE JAVA AND NETWORK PROGRAMMING**

**Paper : M.S.-45**

**Time Allowed : Three Hours]**

**[Maximum Marks : 80**

**Note :—** Attempt **FIVE** questions in all by selecting **ONE** question each from Units I, II, III and IV. Question Number **IX** is compulsory. All questions carry equal marks.

**UNIT—I**

- I. (a) What is the difference between an Applet and a Java Application ? What are the restrictions imposed on Java applets ?
- (b) How do you ensure that N threads can access N resources without deadlock ? 8+8
- II. (a) How many ways to create a frame in Java Swing ? What are the methods of JLabel class in Java Swing ?
- (b) What is the purpose of using the getContentPane() in swing program ? 8+8



## UNIT—II

- III. (a) What are the benefits of PreparedStatement over Statement ?
- (b) What are the JDBC API components ? 8+8
- IV. (a) What is the basic principle of RMI architecture ? Explain the layers of RMI Architecture.
- (b) What are the differences among execute, executeQuery, and executeUpdate ? 8+8

## UNIT—III

- V. (a) What is CGI and what are its drawbacks ? What are the advantages of Servlet over CGI ?
- (b) How is the Get() method different from the Post() method ? 8+8
- VI. (a) What is a datagram ? What is the purpose of datagramPacket and DatagramSocket ?
- (b) Write short notes on :—
- (i) Socket class
- (ii) ServerSocket class. 8+8

## UNIT—IV

- VII. (a) What is Bean Development Kit ? What are the components of BDK in Java ? Is JavaBean a complete component architecture ? Comment.
- (b) Explain JSP Architecture. 8+8



VIII.(a) Explain the JSP directives.

(b) Explain implicit objects in JSP.

8+8

**IX. Compulsory Question :—**

(a) What is DriverManager in JDBC ?

(b) Which data types are used to store the image and file in the database table ?

(c) How will two or three servlets interact or communicate with each other ?

(d) What is a Thread ?

(e) What is the difference between scroll bar and scrollpane ?

(f) What is the difference between WAR and JAR files ?

(g) What is the difference between a window and a frame ?

(h) Why isn't a Bean an Applet ?

8×2