--short question--

- Why do we need top level container like JFrame to write Java programs with GUI? How can we display two dimensional objects in Java?

2+3

- Compare result set with row set. Explain prepared statement with example.

5

- How do you get and set Cookie in Servlet? Explain using suitable Java program.

5

- Explain different scripting elements of JSP with example.

5

- What are the differences between servlets and Java applications? Explain different methods used for handling cookies in Java.

2+3

- What are marshalling and unmarshalling of arguments in RMI? Differentiate between CORBA and RMI.

2+3

Write short notes on (Any Two):

a) Session tracking

b) CORBA

c) Bean bound property

2.5×2.5=5

--long question--

Why do we need to use Layout managers while creating GUI applications in Java? Explain the key interfaces required to develop any database application using Java. Also, write a program to display the records from the table Students who have got distinction and have a major subject in Data science. Assume that the Student table is in the database College and contains the columns RollNo, Name, Level, Division, and Major.

2+4+4

Differentiate between declaration and expression tags used in JSP. Also create a JSP page that contains three textboxes to input three numbers and a button. It should display the greatest number among three numbers when the button is clicked. 3+7

Define RMI. What is stub and parameter marshalling? Write a client/server application using RMI to find product of two numbers.(10)

--OR--

What is RMI? Explain its components. Write a client-server application in RMI to find the selling price of an item with cost price Rs. 5000 after a discount of Rs. 50.(10)