

(3 Hours)

- Note: 1) Question 1 is compulsory, answer any 4 from the remaining 6 questions  
2) All questions carry equal marks.

Q1. Write short note on following (any four)

- XML & DTD
- Session tracking in servlet
- BorderLayout and GridLayout
- abstract class
- struts architecture

Q2. a) What is constructor? Explain the types of constructor. (08)

- b) What is package? Create one package by the named 'government' contains classes as 'Development', 'Yojana', 'Ministry' etc. Implement these classes each containing at least two methods, apply inheritance concept and write the Java program. (07)

Q3. a) Which are the types of Exception? Explain try, catch, throw & throws keyword. (08)

- b) Explain Life cycle of servlet. Write a servlet program to add cookies. (07)

Q4. a) Explain Event Delegation method. Explain ItemListener and MouseListener interface (08)

- b) How do we achieve multiple inheritance in java? Explain with java program. (07)

Q5. a) What is StringBuffer class? Write a program to append a String. (08)

- b) Write a JSP program for the agriculture field to store farmer information in database. (07)

Q6. a) What is synchronisation? How the Thread is created? Draw the life cycle of Thread. (08)

- b) What is EJB? Explain Entity bean & message driven bean. (07)

Q7. a) Which are the Stream classes? Explain it in detail. (08)

- b) Write an applet program that will show GUI components like line, ellipse, polygon, etc. (07)