



- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagram wherever necessary.
 3. Avoid vague answers and write specific answers related to questions.

Either:

1. a) Explain the life cycle of thread. 8
- b) What are the various looping statements available in Java? Explain any one with suitable example. 8

OR

- c) What is exception handling? Write and explain user defined exception. 8
- d) Write a Java program to explain the concept of static and final variable. 8

Either:

2. a) Explain in detail applet life cycle. 8
- b) Write a program and explain the concept of passing parameter to applet. 8

OR

- c) Write a short note on. 8
 - i) Flow layout.
 - ii) Grid layout.
- d) Explain in detail about the swings. 8

Either:

3. a) Explain in detail about various types of drivers. 8
- b) Write a program in Java to insert record in student table of MS-Access. Table has fields Sr. No., Name, Class, Age. 8

OR

- c) Explain in detail updatable result sets. 8
- d) Define collection framework. Explain collection interface and its method. 8

Either:

4. a) Elaborate Get and Post Request of Http with suitable example. 8
- b) Write a servlet program to implement session. 8

OR

- c) Create a JSP page with 'M.Sc. (c/s)' message. 8
- d) Explain the life cycle of servlet. 8

5. Attempt all the questions.
 - a) Write a short note on finalize () method. 4
 - b) Explain in brief about Border layout. 4
 - c) Write the benefits of collection framework. 4
 - d) Write in short about directives. 4
