

Roll No. ....

Total Pages : 03

BT-5/D-23

45198

## JAVA PROGRAMMING

ES-301A

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

## Unit I

1. (a) Elaborate advantage of Java for internet. Give the Structure and type of program in Java.
- (b) Define Class, Method, Object and keyword "this". Show the syntax to define these in java. 8+7=15
2. (a) Write a program to demonstrate the following :
  - (i) To convert lower case string to upper case.
  - (ii) To compare two strings.
- (b) What do you mean by class inheritance ? Write a java program to implement multilevel inheritance concept. 8+7=15

## Unit II

3. (a) How to add class or interface to a package ? Describe the levels of access protection available for packages.

(b) How do you define your own exception ? Explain the following terms with respect to exception handling :

(i) try

(ii) catch

(iii) throw

(iv) finally.

8+7=15

4. (a) Describe the need of thread synchronization. How is it achieved in Java ? Write a program to create two threads, one thread will print odd numbers and second thread will print even numbers between 1 to 20 numbers.

(b) Discuss byte and character structure in JAVA. Write a program to implement the operations of random access file.

8+7=15

### EXA Unit III

5. Describe Applet life-cycle with diagram. Design an Applet to pass username and password as parameters and check if password contains more than 8 characters.

15

6. (a) Discuss the four types of JDBC driver with suitable diagrams. Elaborate reusing database objects.

(b) Write a java program to develop Login Window using AWT.

8+7=15

## Unit IV

7. (a) Discuss about Source, Event and Listeners in event handling. How do you use delegation event model ?
- (b) What are Servlets ? Discuss advantages of Servlets in web application development.  $8+7=15$
8. (a) What is HttpServletRequest and HttpServletResponse in Java ? Discuss about page generation.
- (b) Write a note on persistent state capabilities.  $8+7=15$

