BTC/UCS-403/BTI-404　　　　　Roll No. 2162

BACHELOR OF TECHNOLOGY (CSE, IT), BACHELOR OF TECHNOLOGY (CSE) + MBA & BACHELOR OF TECHNOLOGY (CSE) – EVENING

FOURTH SEMESTER END TERM EXAMINATION : APRIL, 2014

JAVA PROGRAMMING

Time : 3 Hrs.　　　　　　　　*Maximum Marks : 70*

Note: *Attempt questions from all sections as directed.*

SECTION – A　　　　**(30 Marks)**

Attempt any 5 questions.
Each question carries 6 marks.

1. Explain the following terms :–

    (i) Garbage Collection

    (ii) Thread Synchronization

    (iii) Java Virtual Machine　　　　(2 marks each)

2. What are packages in Java ? Explain, with an example. How name conflicts are resolved during package import ?

P.T.O.

(75)

3. What is Multiple Inheritance ? Explain how it can be implemented in Java with the help of an example.

4. What is Layout Manager ? What are Different Layout managers in java.awt ? How to change current layout of a container ?

5. What are streams in Java ? Explain their hierarchy. Write a program to merge two files. Accepts file names using command line arguments.

6. Differentiate between following terms with examples :

   (i) Abstract class & Interface

   (ii) Super & this keyword

   (iii) String and StringBuffer   (2 marks each)

SECTION – B   (20

(b) Explain the following methods related to thread

    (i) wait()

    (ii) sleep()   (5)

8. What is the difference between component & container ? Write an applet program to draw and fill eclipses, circles, Rectangles and Arcs.

9. Give class hierarchy of Exception. Explain with example how you can create and throw your own exception ?

SECTION – C   (20 Marks)
(Compulsory)

10. (a) What is a thread ? How threads are created in Java ? Write a Java Program that creates two threads, One of the threads print positive numbers (1 to 10) and other has to print negative numbers from (−10 to −20).   (10)

   (b) Create an interface with at least one method, in its own package. Create a class in a separate package. Add a protected inner class that

(75)

implements the interface. In a third package, inherit from your class and, inside a method, return an object of the protected inner class, upcasting to the interface during the return.   (10)