R 8197

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2006.

Fifth Semester

Computer Science and Engineering

CS 058 — ADVANCED JAVA PROGRAMMING

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is component class for? List out any four methods of class component.

2. Write the methods which are commonly used in the Key Event Class.

3. Define Collections Framework? What does it contain?

4. What is the output of the following java code?

```
import java.util.*;
public class Sort {
public static void main(String[ ] args) {
List<String> list = Arrays.asList(args);
Collections.sort(list);
System.out.println(list);
}
}
```

java Sort i walk the line.

5. Define socket. Create a server socket which is listening at port 4444.

6. What are the steps carried out in a beanbox to create an application?

7. Write a sample JBDC statement for Loading a specific driver and Creating JDBC Prepared Statement.

8. How do you retrieve image from the multimedia database?

9. Name some rendering modes available in the java 3D.

10. What are locale object in the internationalization of java and write a statement to create Locale objects?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Describe the operation of File Input Stream and File Output Stream classes in java.

(ii) Write java program that writes a set of string to an output file and then reads the file to verify that the output was written correctly.

Or

(b) (i) Write some benefit of Media Tracker class and what are the constants defined in the class.

(ii) Describe the IPV6 address format and explain java networking classes and few of their methods which can be used for IPV6.

12. (a) Write a java program to perform the following operation using linked list.

(i) Remove a node from end of the list

(ii) Insert a node at the end of the list

(iii) Insert a node anywhere in the existing list

(iv) Remove a node anywhere in the existing list.

Or

(b) Write a java program to implement the quick sort. Generate random numbers and sort them using Quick sort.

13. (a) Illustrate how messages can be sent between clients and server using threads. Write a program to implement client server communication using threads.

Or

(b) Describe the various features of java Beans and distinguish between Bound and Constrained properties of java bean. Write various steps to deploy java Bean in the distributed computing.

14. (a) What are the different characteristics satisfied by the transaction? Write a JDBC program to make autocommit false initially, perform the operation of inserting a set of values to the database using execute update, rollback the inserted fields and update the new set of values. After performing these operation make autocommit as true.

Or

(b) Suppose that the owner of a Coffee Shop wants to display his current coffee prices in an applet on his web page. He can be sure of always displaying the most current price by having the applet get the price directly from his database. Write two programs, one with applet code incorporating JDBC and second one with complete HTML code to embed applet.

15. (a) Describe the overview of java 3D API class hierarchy.

Or

(b) What are MVC? Explain how MVC is used in the java swing. Write a simple swing program to display string with jframe and jpanel.

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R 8204

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2006.

Fifth Semester

Computer Science and Engineering

CS 331 — DIGITAL SIGNAL PROCESSING

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is causal and non causal system?

2. What is the advantage in linear phase realization of FIR systems?

3. Define fourier transform of a discrete time signal.

4. State any two properties of frequency response of LTI system.

5. What are the disadvantages of FIR filters?

6. Write the magnitude and phase function of FIR filter when impulse response is symmetric and N is even.

7. State two advantages of bilinear transformation.

8. What is Butterworth approximation?

9. What is Quantization step size?

10. What are the two types of quantization employed in digital system?

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail Recursive and Non–Recursive discrete time systems. (16)

Or

(b) Find the frequency response of the LTI system governed by the difference equation

$$y(x)-a_1 y(x-1)-a_2 y(x-2)=x(x).$$ (16)