Code No: 07A80206 **R07** **Set No. 2**

IV B.Tech II Semester Examinations,APRIL 2011
OBJECT ORIENTED PROGRAMMING
Electrical And Electronics Engineering

Time: 3 hours Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Give the Class hierarchy in Java related to exception handling. Briefly explain each class.
   (b) What is the necessity of exception handling? Explain exception handling taking "divide-by-zero" as an example. [6+10]
2. (a) What is a package? How do we design a package?
   (b) How do we add a class or interface to a package? [8+8]
3. (a) List at least ten major differences between C and Java
   (b) Compare in terms of their functions, the following pairs of statements:
      i. while and do-while
      ii. while and for
   (c) What is an empty statement? Explain its usefulness. [4+4+4+4]
4. Discuss the steps involved in
   (a) developing and running a local applet
   (b) loading and running a remote applet. [8+8]
5. Define the terms client and server. Use socket programming to design a client/server application that takes the filename as input, checks whether the file exists and displays its contents if exists. Display appropriate message for each case. [4+12]
6. (a) Write a short notes o the following graphics functions
      i. paint( )
      ii. repaint( )
      iii. update( )
   (b) Define Canvas. Write a java program which creates a canvas and displays an image on it. [9+7]
7. Write an application to solve quadratic equation of the form
   $AX^2+BX+C=0$

   Where the coefficients A,B and C are real numbers. The two real number solutions are derived by the formula
   $X = (-B \pm \sqrt{B^2 - 4AC})/2A$
   For this exercise,you may assume that A $\neq$0 and the relationship

$B^2 \geq 4AC$
holds, so there will be real number solutions for x. Use the standard input and output.

[16]

8. Explain the following methods of Object class.

   (a) clone()
   (b) finalize()
   (c) hashCode()
   (d) wait(long milliseconds)
   (e) getClass(). [16]

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Code No: 07A80206 **R07** **Set No. 4**

IV B.Tech II Semester Examinations,APRIL 2011
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Electrical And Electronics Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Write a program to create a class with a non default constructor and no default constructor. Create a second class that has a method which returns a reference to the first class. Create the object to return by making an anonymous inner class that inherits from the first class. [16]
2. (a) What is polymorphism? What is the difference between overriding and overloading a method?
   (b) Declare and create a 4X5 int matrix. [8+8]
3. (a) Explain throws statement in Java with the help of an example program.
   (b) What is the difference between throw and throws statement. [8+8]
4. What are the methods supported by the following interfaces. Explain each of them
   (a) ActionListener interface
   (b) MouseMotionListener interface
   (c) TextListener interface. [4+8+4]
5. What are containers? List various containers. Explain the usage of JPanel with example. [4+4+8]
6. How java supports internet programming? What protocol does it having for that? Does java supports intranet programming? How? Explain each of which with java skeleton code. [5+5+6]
7. Write a program that will compute the following series:
   (a) $1/1 + 1/2 + 1/3 + ... + 1/n$
   (b) $1/1 + 1/2 + 1/2^2 + ... + 1/2^n$. [8+8]
8. Explain about Object class in detail. [16]

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Code No: 07A80206 **R07** **Set No. 1**

IV B.Tech II Semester Examinations,APRIL 2011
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Answer any FIVE Questions
All Questions carry equal marks

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1. (a) In Java threads do away with polling. Comment on it.
   (b) With the help of an example, explain the following interthread communication methods
      i. wait( )
      ii. notify( ) and
      iii. notifyAll( ). [4+12]
2. What are applets? Explain life cycle of an applet. [4+12]
3. With the help of an example program explain how you handle all keyboard related events. [16]
4. Explain the following:
   (a) Calendar class
   (b) Observable class
   (c) Random class. [5+5+6]
5. (a) What is interface? Write a program to demonstrate how interfaces can be extended.
   (b) What is package? How do you create a package? Explain about the access protection in packages? [8+8]
6. (a) Describe the structure of a typical java program.
   (b) Why do we need the import statement?
   (c) What is statement? How do the java statements differ from those of C and C++?
   (d) Given a number , write a program using while loop that reverses the digits of the number. [4+2+4+6]
7. (a) What is the difference between equality of objects and equality of objects and equality of references that refer to them?
   (b) What is the difference between a public member and a private member of a class?
   (c) write an application that computes the value of X by using the formula: $e^x = 1 + x/1! + x^2/2! + x^3/3! + ...$ [4+4+8]

8. Create a 3-level inheritance hierarchy. Each class in the hierarchy should have a finalize( ) method, and it should properly call the base-class version of finalize( ). Demonstrate that your hierarchy works properly. [16]

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Code No: 07A80206 **R07** **Set No. 3**

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Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. What do you mean by URL? How to create an URL? Explain several methods provided by URL? Give appropriate examples. [4+4+8]

2. Create an abstract class with no methods. Derive a class and add a method. Create a static method that takes a reference to the base class, downcasts it to the derived class, and calls the method. In main( ), demonstrate that it works. Now put the abstract declaration for the method in the base class, thus eliminating the need for the downcast. [16]

3. What is package? Explain the procedure to create a package with the help of example. 16]

4. (a) In what way JList differ from JComboBox?
   (b) JList does not support scrolling. Why? How this can be remedied? Explain with an example. [6+10]

5. (a) List and explain the eight data types used in Java. Give examples.
   (b) Write a while loop to find the smallest n such that n^2 is greater than 10,000. [8+8]

6. (a) Describe the difference between object declaration and object creation. Use a state-of-memory diagram to illustrate the difference.
   (b) Show a state-of-memory diagram after each of the these statements is executed.

```
Person      person1,person2;
person1      = new Person( );
person2      = new Person( );
person2      = new Person( );
```

[8+8]

7. With the help of an example java program, explain how you can create your own exception types in Java. [16]

8. Write a java program which prints your Bio data consisting of (Title:Biodata, name, address, qualifications, date of Birth, skills). Each item is to be printed with different font. [16]

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