Set No. 1

II B.Tech Supplimentary Examinations, Aug/Sep 2008
OOP THROUGH JAVA
(Common to Electronics & Communication Engineering, Computer Science & Engineering, Information Technology, Computer Science & Systems Engineering, Electronics & Telematics and Electronics & Computer Engineering)

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. (a) List 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]

2. (a) What is class? How does it accomplish data hiding?
   (b) How do classes help us to organize our programs?
   (c) Compare and contrast overloading and overriding methods.   [4+4+8]

3. Explain about Object class in detail.   [16]

4. Create an interface with at least one method, and implement that interface by defining an inner class within a method, which returns a reference to your interface.
   [16]

5. What is Error? What is Exception? Are they totally different or related? As a programmer what is the difference in handling an error and an exception. With the help of a simple java program explain the concepts error and exception. [2+2+2+4+6]

6. Explain in detail about the following event classes:
   (a) ComponentEvent
   (b) ContainerEvent
   (c) FocusEvent.   [6+5+5]

7. (a) Explain various components of User Interface.
   (b) How will you arrange components on User Interface?   [6+10]

8. Write a program to illustrate the usage of the following methods of StringBuffer class. Explain the output in each case. Delete(), setChatAt(), deleteChatAt(), append(), chatAt(), getChars().   [16]

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Set No. 2

II B.Tech Supplementary Examinations, Aug/Sep 2008
OOP THROUGH JAVA
**(Common to Electronics & Communication Engineering, Computer Science
& Engineering, Information Technology, Computer Science & Systems
Engineering, Electronics & Telematics and Electronics & Computer
Engineering)**

Time: 3 hours   Max Marks: 80
Answer any FIVE Questions
All Questions carry equal marks
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1. (a) Describe the structure of a typical java program
   (b) Enumerate the rules for creating identifiers in java
   (c) What are the conventions followed in java for naming identifiers? Give examples?   [6+4+6]

2. (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 ex by using the formula:
   $e^x = 1 + x/1! + x^2/2! + x^3/3! + ...$ [4+4+8]

3. Explain about Object class in detail.   [16]

4. 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]

5. (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]

6. What is event source? Give examples of event sources. How events are generated. Are all events generated by user actions? Comment on it.   [16]

7. (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]

8. Write a EchoServer and EchoClient program that displays whatever is typed in the server to the client using sockets.   [16]

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Set No. 3

II B.Tech Supplimentary Examinations, Aug/Sep 2008
OOP THROUGH JAVA
(Common to Electronics & Communication Engineering, Computer Science
& Engineering, Information Technology, Computer Science & Systems
Engineering, Electronics & Telematics and Electronics & Computer
Engineering)

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. (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]

2. (a) What is the difference between overriding and overloading a method?
   (b) Write an application that finds the smallest of several integers. Assume that the first value read specifies the number of values to input the user.   [8+8]

3. (a) How super class members are accessed in java?
   (b) When do we declare a method or class Absract?
   (c) when do we declare a class or method final?   [5+5+6]

4. Write a sample program to illustrate packages.   [16]

5. (a) With the help of an example, explain multithreading by extending thread class.
   (b) Implementing Runnable interface and extending thread, which method you prefer for multithreading and why.   [10+6]

6. Write a java program which creates human face.   [16]

7. (a) How will you create check boxes and Choice boxes? Explain the steps in detail.
   (b) Explain the differences between exclusive checkbox and non- exclusive check box.   [8+8]

8. (a) How does Random class generate pseudo random numbers?
   (b) Write a program to generate a set of random numbers. Find its sum and average. The program should also display * based on the random numbers generated.   [8+8]

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Set No. 4

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Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
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1. 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]

2. Describe the following terms:

    (a) super and this

    (b) final and abstract

    (c) passing parameter-call by value

    (d) Overloading methods & Constructors.   [4+4+4+4]

3. Add a new method in the base class of Shapes.java that prints a message, but don't override it in the derived classes. Explain what happens. Now override it in one of the derived classes but not the others, and Explain what happens. Finally, override it in all the derived classes, Explain in detail about each situation.   [16]

4. Write a sample program to illustrate packages.   [16]

5. (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]

6. Write a java program which displays a clock. The edges are static. Three edges are required indicating hour, minute, and seconds. The length and width of edges should be approximately chosen. Display "Timex" at the centre of the clock. [16]

7. (a) Explain various components of User Interface.

    (b) How will you arrange components on User Interface?   [6+10]

8. Explain the following methods of StringBuffer class and write a java program illustrating these. Length(), capacity(), SetLength(), EnsureCapacity().   [4+4+4+4]

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