Code No: **R42028** **R10** **Set No. 1**

IV B.Tech II Semester Regular/Supplementary Examinations, April- 2015

OOPS THROUGH JAVA

(Electrical and Electronics Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

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1 a) Distinguish between object-oriented programming and object-based programming. [8]

b) Write a program to read a number of any lengths. Perform the addition and subtraction on largest and smallest digits of it. [7]

2 a) What is Overloading? Explain Method overloading with an example. [8]

b) State and explain various types of constructors. [7]

3 a) Explain the member access mechanism in inheritance with an example. [8]

b) Explain the procedure to call super class members with an example. [7]

4 a) Give general form of a multileveled package statement. What is the significance of the CLASSPATH environment? [8]

b) What are the packages provided by java API? Explain. [7]

5 a) Discuss the key terms “throw" and “throws". Give suitable examples, which show how to use them. [8]

b) Distinguish between synchronous and asynchronous exceptions. [7]

6 a) Write the HTML Applet Tag and explain each part of it. [8]

b) How to create a generic class with two type parameters? Explain. [7]

7 Briefly explain the following terms:

a) Component b) Container

c) Panel d) Window [15]

8 Explain the following AWT components with example [15]

a) JBotton
b) JCheck boxes
c) JRadio buttons
d) JCombo boxes

Code No: **R42028** **R10** **Set No. 2**

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OOPS THROUGH JAVA

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Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions
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*****

1 a) Explain the roles of agents, community and messages amongst agents in OOP paradigm. [8]
b) Write a program to read a number containing five digits. Generate square of individual digit as output. (Ex. Input:45252 output: 16254254) [7]

2 a) What is Overloading? Explain Constructor overloading with an example. [8]
b) Explain about the inner classes and nested classes in java. [7]

3 a) How the keyword 'final' can be used to prevent overriding? Explain with an example. [8]
b) Write a simple program to demonstrate the order to initialization of the base classes and derived classes. [7]

4 a) Give the general form of the import statement. Illustrate a Java program that creates a package and uses it. [8]
b) Define abstract class and interface. What are the differences between them? Explain with suitable examples. [7]

5 a) Explain the working of Java errors and exception detecting and correcting mechanism. [8]
b) Create a try block that will generate three types of exception and also create necessary catch blocks to catch these exceptions and handle these. You should also use finally statement in your block. [7]

6 a) What are the four forms of method repaint( )? Explain their usage with a sample java program. [8]
b) What is the lifecycle of an applet? Which method is used for setting security in applets? [7]

7 a) What is delegation events model? Explain. What are the benefits? [8]
b) What is an adaptor class? Describe about various adaptor class in detail. [7]

8 a) JList does not support scrolling. Why? How this can be remedied? Explain with an example. [8]
b) Explain the tabbedpane swing control. [7]

Code No: **R42028** **R10** **Set No. 3**

IV B.Tech II Semester Regular/Supplementary Examinations, April- 2015

OOPS THROUGH JAVA

(Electrical and Electronics Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any Five Questions
All Questions carry equal marks

*****

1 a) What are the components of java architecture? Explain in detail. [8]

b) Write a program to Read the elements of the matrix of the order up to 3*3 and transpose its elements. [7]

2 a) What is garbage collection? Explain with an example. [8]

b) How to request a service from an object through a message? Explain. [7]

3 a) What are the differences between private, static and final variables? [8]

b) Explain the characteristics of inheritance for the following:
i) Construction ii) Extension [7]

4 a) What is the difference between implicit and explicit import statement? Which one take less time for compilation? [8]

b) How to extend one interface by the other interface? Explain with an example. [7]

5 a) Distinguish between checked and unchecked exceptions. [8]

b) Write briefly on multithreaded programming and inter thread communication in java. [7]

6 a) Write Java code for a simple Banner Applet and explain it. [8]

b) What is meant by auto unboxing? Explain with an example. [7]

7 What are advantages of layout managers? Why java prefers layout manager instead of fixing the components by x and y coordinates? What are the different layout managers AWT supports? [15]

8 a) What is JFC? What are the differences between Swing and AWT? [8]

b) Explain the scrollpane swing control. [7]

Code No: **R42028** **R10** **Set No. 4**

IV B.Tech II Semester Regular/Supplementary Examinations, April- 2015

OOPS THROUGH JAVA

(Electrical and Electronics Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any Five Questions

All Questions carry equal marks

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1 a) What are the shortcomings of procedure oriented programming? Explain how does object oriented programming overcome these shortcomings. [8]

b) Write a java program to read the quantity and price of various Pentium models using an array. Compute the total cost of all models. [7]

2 a) Explain the parameter passing mechanisms in java. Give examples for it. [8]

b) Define recursion. Write a program to find the factorial for a given integer using recursive function. [7]

3 a) What is an abstract class? What is its importance? How is it designed in java? [8]

b) Does a super class variable be used to refer a sub class object. Explain with an example. [7]

4 a) What is multiple inheritance? Explain how it can be implemented in Java with the help of an example. [8]

b) Explain BufferedReader and BufferedWriter classes from IO package with an example. [7]

5 a) Explain how a new Exception class can be created and used in another java program. [8]

b) Describe the process of creating generic constructors. [7]

6 a) What are the differences between applications and applets? [8]

b) State and explain the simple Applet display methods. [7]

7 What are the components and other graphical user interface elements that can act as sources of events? What are the events that can be generated from the above events? Explain. [15]

8 a) How would you detect a keypress in a JComboBox? Explain. [8]

b) Explain about the trees swing control. [7]