Code No: **RT42024A** **R13** **Set No. 1**

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2018

OOPS THROUGH JAVA

(Electrical and Electronics Engineering)

Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
****

PART–A ***(22 Marks)***

1. a) Explain the importance of Java to Internet. [4]
   b) Explain scope and lifetime of variables. [3]
   c) What are types of inheritances in Java? Explain. [4]
   d) Differentiate between process and thread. [3]
   e) What is an Applet? What are the differences between local and remote applets? [4]
   f) What is swing? Discuss its features. [4]

PART–B ***(3x16 = 48 Marks)***

2. a) What are the principles of object oriented languages? Explain. [8]
   b) Explain how object oriented programming overcomes the shortcomings of procedure oriented programming. [8]

3. a) Explain control statements of JAVA with suitable example. [8]
   b) What is constructor? Explain with an example. [8]

4. a) When will you use the keyword 'super'? Write a Java program using super keyword. [8]
   b) Discuss about packages of java language. [8]

5. a) Write a program in JAVA that creates a Child Thread of main using Runnable interface and uses the following methods:-
      (i) getName()
      (ii) setName()
      (iii) setPriority() [8]
   b) Explain about adapter classes. [8]

6. a) Explain different event classes supported by Java. [8]
   b) Explain handling keyboard events with an example. [8]

7. Describe about various components in AWT. [16]

Code No: **RT42024A** **R13** **Set No. 2**

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2018

OOPS THROUGH JAVA

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Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) What is the contribution of Java to the World Wide Web? [3]
   b) Write the precedence of operators in Java and explain the way to alter this order by using suitable example. [4]
   c) Explain the significance of public, protected and private access specifiers in inheritance. [4]
   d) Write short notes on creation of a thread. [4]
   e) Differences between Applets and Applications. [4]
   f) What are the limitations of AWT? [3]

PART–B *(3x16 = 48 Marks)*

2. a) Explain the general syntax of writing an application program in Java. Also explain the steps to run an application Java program. [8]
   b) Write a brief note on JVM. How a Java program is converted into machine code? [8]

3. a) What are expressions? What are different types of expressions? Explain. [8]
   b) What is class? Explain it with the help of an example. [8]

4. a) What are the differences between private, static and final variables? [8]
   b) What is an exception? What are different exceptions in Java? Explain how you can handle exception in JAVA. [8]

5. a) What is Multithreading? In how many ways java implements multithreading? Explain. [8]
   b) Write a short notes on Java.io package [8]

6. What are the methods supported by keyListener interface and mouseListener interface? Explain each of them with examples. [16]

7. Describe about various components in SWING. [16]

Code No: **RT42024A** **R13** **Set No. 3**

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2018

OOPS THROUGH JAVA

(Electrical and Electronics Engineering)

Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) What are difference between C++ and Java? [4]
   b) Explain 'this' keyword. [3]
   c) Explain about final classes, final methods and final variables. [4]
   d) Explain the life cycle of thread. [4]
   e) What are different types of Applets? [3]
   f) What are the different types of containers defined in Swing? [4]

PART–B *(3x16 = 48 Marks)*

2. a) Explain the concepts of encapsulation, inheritance, dynamic binding and message communication using an examples. [8]
   b) What are the differences procedural oriented languages and object oriented programming language? [8]

3. a) What is an operator? Explain different types of operators. [8]
   b) What is garbage collection? Explain in detail. [8]

4. a) What is package? Explain the procedure to create a package with the help of example. [8]
   b) Explain method overloading with an example program. [8]

5. a) What is the importance of synchronization in multithreading programming? [8]
   b) How inter thread communication is done in Java? Write a java program to create multithreads with different priorities. [8]

6. a) Explain in detail about the following event classes
      (i) ComponentEvent
      (ii) ContainerEvent
      (iii) FocusEvent [8]
   b) What is adapter class and how you can use it for event handling easier in programming? [8]

7. a) What is swing? Explain its features. How are swings different from AWT? [8]
   b) Explain about JTabbedPane. [8]

Code No: **RT42024A** **R13** **Set No. 4**

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2018

OOPS THROUGH JAVA

(Electrical and Electronics Engineering)

Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) What is the need for OOP paradigm? [4]
   b) Explain briefly type conversion and casting. [4]
   c) When do we declare a method or class as final? [3]
   d) Explain about io reading and writing functions. [3]
   e) Write a program for Java Applet which has withdrawal form of Bank. [4]
   f) Write short notes on JFrame. [4]

PART–B *(3x16 = 48 Marks)*

2. a) What are the applications of object oriented programming language? [8]
   b) What are the main features of Java? [8]

3. a) Compare in terms of their functions, the following pairs of statements,
   (i) while and do-while
   (ii) while and for [8]
   b) Explain method overloading and constructor overloading. [8]

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

5. a) What is thread? Explain its lifecycle in detail. [8]
   b) Define multithreading? Explain the producer consumer problem using multi threading. [8]

6. a) What are the components and other graphical user interface elements that can act as source of events? What are the events that can be generated by the above elements? Explain. [8]
   b) What is inner classes? How are they useful in simplifying the code while using event adapter classes? [8]

7. What is layout manager? What are its different types? Explain any two layout managers. [16]