

**R16**

Code No: 133BM

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech II Year I Semester Examinations, November/December - 2017****OBJECT ORIENTED PROGRAMMING THROUGH JAVA****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit.

Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A****(25 Marks)**

- 1.a) Differentiate between print() and println() methods in Java. [2]
- b) What are symbolic constants? Explain with examples. [3]
- c) What are the methods available in the character streams? [2]
- d) What is the significance of the CLASSPATH environment variable in creating/using a package? [3]
- e) What is the difference between error and an exception? [2]
- f) What is synchronization and why is it important? [3]
- g) What is the significance of Legacy class? Give example. [2]
- h) What is the purpose of String Tokenizer class? Explain. [3]
- i) What are the differences between JToggleButton and Radio button? [2]
- j) What is an adapter class? Explain with an example. [3]

**PART-B****(50 Marks)**

- 2.a) What is meant by byte code? Briefly explain how Java is platform independent.
- b) Explain the significance of public, protected and private access specifiers in inheritance. [5+5]

**OR**

- 3.a) Explain different parts of a Java program with an appropriate example.
- b) How does polymorphism promote extensibility? Explain with example. [5+5]

- 4.a) Explain the process of defining and creating a package with suitable examples.
- b) Give an example where interface can be used to support multiple inheritance. [5+5]

**OR**

- 5.a) What is the accessibility of a public method or field inside a nonpublic class or interface? Explain.
- b) Describe the process of importing and accessing a package with suitable examples. [5+5]

- 6.a) Differentiate between Checked and UnChecked Exceptions with examples.  
b) Write a program to create four threads using Runnable interface. [5+5]

**OR**

- 7.a) What are the different ways to handle exceptions? Explain.  
b) How many ways are possible in java to create multiple threaded programs? Discuss the differences between them. [5+5]

- 8.a) Differentiate between ArrayList and a Vector? Why ArrayList is faster than Vector? Explain.  
b) How an Hashtable can change the iterator? Explain. [5+5]

**OR**

- 9.a) Explain the Bit Set and Calander classes in detail.  
b) Discuss the differences between HashList and HashMap, Set and List. [5+5]

- 10.a) List and explain different types of Layout managers with suitable examples.  
b) How to move/drag a component placed in Swing Container? Explain. [5+5]

**OR**

- 11.a) Discuss about different applet display methods in brief.  
b) What are the various components of Swing? Explain. [5+5]

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**Code No: 133BM****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech II Year I Semester Examinations, May/June - 2019****OBJECT ORIENTED PROGRAMMING THROUGH JAVA****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit.

Each question carries 10 marks and may have a, b as sub questions.

**PART- A****(25 Marks)**

- 1.a) Differentiate between class and object. [2]
- b) What is meant by ad-hoc polymorphism? [3]
- c) How to define a package in Java? [2]
- d) Contrast between abstract class and interface. [3]
- e) Define exception. [2]
- f) Differentiate between a thread and a process. [3]
- g) Which methods of deque enable it to be used as a stack? [2]
- h) Make a comparison of List, array and ArrayList. [3]
- i) Give the AWT hierarchy. [2]
- j) What are the various classes used in creating a swing menu? [3]

**PART-B****(50 Marks)**

- 2.a) What are the responsibilities of an agent? [5]
  - b) What is the purpose of constructor in Java programming? [5]
- OR**
3. Define inheritance. What are the benefits of inheritance? What costs are associated with inheritance? How to prevent a class from inheritance? [10]
  4. Write a program to demonstrate hierarchical and multiple inheritance using interfaces. [10]
- OR**
- 5.a) Demonstrate ordinal( ) method of enum. [5]
  - b) What is type wrapper? What is the role of auto boxing? [5]
  6. Write a program to create three threads in your program and context switch among the threads using sleep functions. [10]
- OR**
- 7.a) Write a program with nested try statements for handling exception. [5]
  - b) How to create a user defined exception? [5]

8. Write a program to read a file content and extract words using String Tokenizer class. Display the file if it contains the user query term/search key. [10]

**OR**

9.a) Contrast sorted map and navigable map interfaces.

b) What is the purpose of BitSet class? What is the functionality of the following functions of BitSet class: cardinality( ), flip( ) and intersects( ) [5+5]

10.a) Illustrate the use of Grid Bag layout.

b) What are the subclasses of JButton class of swing package? [5+5]

**OR**

11.a) Create a simple applet to display a smiley picture using Graphics class methods.

b) Write a short note on delegation event model. [5+5]



**Code No: 133BM****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech II Year I Semester Examinations, April/May - 2018****OBJECT ORIENTED PROGRAMMING THROUGH JAVA****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A****(25 Marks)**

- 1.a) What is abstract class? Give example. [2]
- b) Explain the use of 'for' statement in Java with an example. [3]
- c) Define a Package? What is its use in java? Explain. [2]
- d) List out the benefits of Stream oriented I/O. [3]
- e) How do we start and stop a thread? [2]
- f) Write the complete life cycle of a thread. [3]
- g) What is the benefit of Generics in Collections Framework? [2]
- h) Differentiate between Enumeration and Iterator interface. [3]
- i) What are the limitations of AWT? [2]
- j) Why do applet classes need to be declared as public? [3]

**PART-B****(50 Marks)**

- 2.a) What is inheritance and how does it help to create new classes quickly.
- b) Describe different levels of access protection available in Java. [5+5]

**OR**

- 3.a) List the primitive data types available in Java and explain.
- b) What is polymorphism? Explain different types of polymorphisms with examples. [5+5]

- 4.a) What is an interface? What are the similarities between interfaces and classes?
- b) How can you extend one interface by the other interface? Discuss. [5+5]

**OR**

- 5.a) Discuss about CLASSPATH environment variables.
- b) Discuss the different levels of access protection available in Java. [5+5]

- 6.a) What are advantages of using Exception handling mechanism in a program?
- b) Write a java program that demonstrates how certain exception types are not allowed to be thrown. [5+5]

**OR**

- 7.a) What are the different ways that are possible to create multiple threaded programs in java? Discuss the differences between them.
- b) Write a program to create four threads using Runnable interface. [5+5]

8.a) What is Java Collections Framework? List out some benefits of Collections framework and explain.

b) What is the importance of hashCode() and equals() methods? [5+5]

**OR**

9.a) What are the common algorithms implemented in Collections Framework? Discuss.

b) What is difference between ArrayList and LinkedList in collection framework? Explain. [5+5]

10.a) What is an applet? Explain the life cycle of Applet with a neat sketch.

b) Write the applets to draw the Cube and Cylinder shapes. [5+5]

**OR**

11.a) What is an Layout manager? Explain different types of Layout managers.

b) Write a program to create a frame window that responds to key strokes. [5+5]

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The logo for NIRCOM features a stylized tree with a purple trunk and branches, and leaves in shades of yellow, orange, and red. Below the tree, the word "NIRCOM" is written in a bold, purple, sans-serif font. The entire logo is enclosed in a thin purple rectangular border.

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**Code No: 133BM**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**B.Tech II Year I Semester Examinations, November/December - 2018**  
**OBJECT ORIENTED PROGRAMMING THROUGH JAVA**  
**(Common to CSE, IT)**

**Time: 3 Hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A**

**(25 Marks)**

- 1a) What is inheritance? Give example. [2]
- b) Define the basic characteristics of object oriented programming. [3]
- c) What is Console class? What is its use in java? [2]
- d) What is the use of auto boxing in java? Explain. [3]
- e) What is thread based preemptive multitasking? [2]
- f) How do we set priorities for threads? [3]
- g) What is a Java Priority queue? [2]
- h) What is a Collection Class? Give an example. [3]
- i) What is Swing in Java? How it differs from Applet. [2]
- j) How do applets differ from application program? [3]

**PART-B**

**(50 Marks)**

- 2.a) Describe the structure of a typical Java program with an example.
  - b) Write the significance of Java Virtual Machine. [5+5]
- OR**
- 3.a) How do we implement polymorphism in JAVA? Explain briefly.
  - b) What is an array? How do you declare the array in java? Give examples. [5+5]
- 4.a) How to design and implement an interface in Java? Give an example.
  - b) Give an example where interface can be used to support multiple inheritance. [5+5]
- OR**
- 5.a) What are the methods available in the Character Streams? Discuss.
  - b) Distinguish between Byte Stream Classes and Character Stream Classes. [5+5]
- 6.a) What is an Exception? How is an Exception handled in JAVA?
  - b) Write a java program that illustrates the application of multiple catch statements. [5+5]
- OR**
- 7.a) Differentiate between multiprocessing and multithreading. What is to be done to implement these in a program?
  - b) Write a program that creates two threads. First thread prints the numbers from 1 to 100 and the other thread prints the numbers from 100 to 1. [5+5]

8. a) What are similarities and difference between ArrayList and Vector? Explain.  
b) What is different between Iterator and ListIterator? Explain different ways to iterate over a list. [5+5]

**OR**

- 9.a) What are the best practices related to Java Collections Framework? Discuss.  
b) What is Comparable and Comparator interface? Differentiate between them. [5+5]

- 10.a) What is the difference between init( ) and start ( ) methods in an Applet? When will each be executed?

- b) Write the applets to draw the Cube and Circle shapes. [5+5]

**OR**

- 11.a) Explain various layout managers in JAVA.  
b) Write a program to create a frame window that responds to mouse clicks. [5+5]



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**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech II Year I Semester Examinations, December - 2019****OBJECT ORIENTED PROGRAMMING THROUGH JAVA****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit.

Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A****(25 Marks)**

- 1.a) What are the commands used for compilation and execution of java programs? [2]
- b) What is java bytecode? What is JVM? [3]
- c) What is a package? Write the syntax to define a "package". [2]
- d) What does Java API package contain? [3]
- e) What are the run time errors and logical errors in Java? [2]
- f) What is an exception? What are two exception types? [3]
- g) What are the properties of hash table? [2]
- h) Differentiate between Iterator and for-each. [3]
- i) What are the differences between an applet and stand alone java application? [2]
- j) What are the methods in applet life cycle? [3]

**PART-B****(50 Marks)**

- 2.a) Explain briefly class, public, static, void, main, string[] and system.out.println() key words.
  - b) Write a java method to find minimum value in given two values. [5+5]
- OR**
- 3.a) Discuss about precedence of operators and associativity.
  - b) Explain the polymorphism and overloading with an example. [5+5]
- 4.a) Write the benefits of packages and interfaces.
  - b) How can we add a class to a package? Write about relative and absolute paths. [5+5]
- OR**
- 5.a) Write the differences between interface and abstract class.
  - b) Write the procedure to a create package with multiple public classes. [3+7]
- 6.a) What is exception handling? Explain an example of exception handling in the case of division by zero.
  - b) Write a simple java program to create threads. [5+5]
- OR**
- 7.a) Write about some Java's built in exceptions.
  - b) With an example, demonstrate the concept of thread synchronization. [5+5]

8. With syntax, explain the following utility classes.  
a) String Tokenizer                      b) Date and Calendar                      c) Scanner.                      [10]

**OR**

- 9.a) Compare and contrast any two collection algorithms.  
b) Explain the process of accessing collection through iterator.                      [5+5]

- 10.a) Write the step wise procedure to create and run an applet.  
b) List the event classes and Listener Interfaces.                      [5+5]

**OR**

11. Write an applet code to demonstrate parameter passing to applet.                      [10]

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