

R16

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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