

Code No: 133BM

R16**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.
- b) Define the basic characteristics of object oriented programming.
- c) What is Console class? What is its use in java?
- d) What is the use of auto boxing in java? Explain.
- e) What is thread based preemptive multitasking?
- f) How do we set priorities for threads?
- g) What is a Java Priority queue?
- h) What is a Collection Class? Give an example.
- i) What is Swing in Java? How it differs from Applet.
- j) How do applets differ from application program?

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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]

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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]

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]

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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