

Code No: 133BM

R16**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.
- b) Explain the use of 'for' statement in Java with an example.
- c) Define a Package? What is its use in java? Explain.
- d) List out the benefits of Stream oriented I/O.
- e) How do we start and stop a thread?
- f) Write the complete life cycle of a thread.
- g) What is the benefit of Generics in Collections Framework?
- h) Differentiate between Enumeration and Iterator interface.
- i) What are the limitations of AWT?
- j) Why do applet classes need to be declared as public?

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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]

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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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