

Code No: 813AQ

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA III Semester Examinations, August - 2017****JAVA PROGRAMMING****Time: 3 Hours****Max. Marks: 60****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

**PART - A****5 × 4 Marks = 20**

- 1.a) What is a constructor? Explain briefly various types of constructors. [4]
- b) What is inner class? Write its uses. [4]
- c) Discuss about Java.net package. [4]
- d) Discuss about thread priorities and how do set the priority to a thread in java. [4]
- e) Elaborate the life cycle of applet. [4]

**PART - B****5 × 8 Marks = 40**

- 2.a) Discuss various access modifiers in java.
- b) Demonstrate string class and the methods available in string class. [4+4]

**OR**

- 3.a) Write a java program to demonstrate method overloading.
- b) Write the features of java programming language. [4+4]

- 4.a) What is inheritance? Write its advantages.
- b) Write a java program to demonstrate multilevel inheritance. [4+4]

**OR**

- 5.a) What is interface? Explain how it is differ from abstract class.
- b) Design a java program to implement interface with an example. [4+4]

- 6.a) Give an account on Hash Table class and explain with example program.
- b) Discuss about TreeMap interface in detail. [4+4]

**OR**

7. Explain the steps to create TCP connection using Socket class and design a java program to send a message to the server from client and waiting for response from the server.[8]

- 8.a) Give a note on checked and unchecked exception.
- b) Design a java class to handle checked and unchecked exception. [4+4]

**OR**

- 9.a) What is thread and explain life cycle of thread?
- b) Write a Java program to implement multi threading concept. [4+4]

- 10.a) Discuss various layout manages in java.
- b) Write a java program to create a frame which takes two integers and display the sum of two integers using button events. [4+4]

**OR**

- 11.a) What is delegation event model? Explain in detail.
- b) Write an applet program to draw an oval. [4+4]