



Code No: 813AQ

**R13****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA III Semester Examinations, June/July - 2018****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) Give code to demonstrate the use of 'this' keyword. [4]
- b) How to define and import packages in Java? [4]
- c) What is the use of HashMap class? [4]
- d) What is the need of thread synchronization? Give suitable example. [4]
- e) Differentiate between applet and application programs. [4]

**PART - B****5 × 8 Marks = 40**

2. What features of Java makes it a robust language? Explain with illustrations. [8]

**OR**

3. Write a program to read a sentence from the user and search for a given string in this sentence. Use String class methods to display the search results. [8]

4. What is an interface? How does it differ from abstract class? Explain partial implementation of an interface. [8]

**OR**

5. Explain various forms of inheritance along with their benefits. Use suitable code segments to support your discussion. [8]

6. Write a program to demonstrate random access file operations. Consider your class students data in that file. [8]

**OR**

7. Make a comparison of client server communication mechanisms – sockets, datagrams with necessary code. [8]

8. What are the benefits of exception handling? Java uses five keywords for exception handling. Demonstrate these keywords usage. [8]

**OR**

9. Write a program to create multiple threads and assign different priorities to them. [8]

10. Describe model-view-controller architecture for application development. [8]

**OR**

11. Write a program to handle keyboard events using delegation event model. [8]

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