Code No: 823AD

	R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA III Semester Examinations, December - 2019
JAVA PROGRAMMING

Time: 3hrs   **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

5 × 5 Marks = 25

1.a)   What is Type casting? Describe implicit & explicit typecasting with examples.   [5]
  b)   Why do we need Abstract classes in Java? Demonstrate with suitable example.   [5]
  c)   What is Java Collection Framework? List out benefits of Collections.   [5]
  d)   Illustrate the uses of throw & throws clause.   [5]
  e)   What are the limitations of AWT? Enumerate benefits of SWING over AWT.   [5]

PART - B

5 × 10 Marks = 50

2.a)   Differentiate between Procedure Oriented Programming and Object Oriented Programming. Explain OOP features in detail.
  b)   Write a Java Program to display all even numbers and sum of even numbers from 1 to 100.   [6+4]

OR

3.a)   What is a Constructor? Demonstrate Copy Constructors and Parameterized Constructors with suitable examples.
  b)   Enumerate auto boxing and unboxing concepts with an example.   [6+4]

4.a)   What is Inheritance? Explain different types of inheritance in JAVA.
  b)   Write a Java Program for demonstration of final variables, final classes and final methods.   [6+4]

OR

5.a)   What are the benefits of inner classes? Differentiate between inner class and local inner class.
  b)   Write a JAVA program for creating a sub package in JAVA.   [5+5]

6.a)   Differentiate Array List and Linked List with suitable examples.
  b)   Describe concurrent collection classes in brief.   [6+4]

OR

7.a)   What is a random access file? Why do we need it?
  b)   Create a Random Access file stream for the file "student.txt" for uploading the student information in to the file?   [4+6]

8.a) Describe Built-in Exceptions in Java.
  b) Explain nested try statements and multiple catch statements in Java with an example
     program.   [5+5]

OR

9.a) What is the difference between multiprocessing and multithreading?
  b) How to start a thread? Write a java program for implementation of multithreading
     concept.   [4+6]

10.a) Describe Event class & Event Listener. Explain about Event delegation Model.
   b) How to handle Mouse Events in java? Illustrate with an example.   [5+5]

OR

11.   Write a program using Java Swingfor implementation of given components.   [10]
      a) JFrame
      b) JButton
      c) JLabel
      d) JTextField

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