

Student Registration Number

B

**COURSE CODE: DCAP501**

**COURSE TITLE: MODERN PROGRAMMING TOOLS & TECHNIQUES-I**

**Time Allowed: 3 hours**

**Max. Marks: 80**

1. *This paper contains 10 questions divided in two parts on 1 page.*
2. **Part A is compulsory.**
3. **In Part B (Questions 2 to 10), attempt any 6 questions out of 9. Attempt all parts of the selected question.**
4. *The marks assigned to each question are shown at the end of each question in square brackets.*
5. *Answer all questions in serial order.*
6. **The student is required to attempt the question paper in English medium only.**

**PART-A**

- Q1. (a) What is the use of 'final' keyword in Java? [2]  
(b) Differentiate between 'Interface' and 'Abstract class'. [2]  
(c) What is the difference between 'String' and 'StringBuffer' class? [2]  
(d) What are the uses of 'final' keyword? [2]  
(e) Define 'Wrapper Class'. What is the need of Wrapper class? [2]  
(f) What do you mean by 'Thread Synchronization'? [2]  
(g) Discuss any two methods of 'RandomAccessFile' class. [2]  
(h) What are the various states of Applet life-cycle? [2]  
(i) What is the difference between 'Window' and 'Frame' in AWT? [2]  
(j) Write any two methods of 'MouseListener' interface. [2]

**PART-B**

- Q2. Discuss any five methods of 'String' class with example. [10]  
Q3. Define Object, Class and Method. Differentiate between 'Method' and 'Constructor' with example. [10]  
Q4. Write a program to create a thread which prints all the even numbers from 20 to 0 in descending order. [10]  
Q5. Write a program to create an Applet which contains a 'TextField' and a 'Button'. [10]  
Q6. What do you mean by Event Listener? Name any five Listener interfaces. [10]  
Q7. Define Streams? Differentiate between Byte Stream and Character Stream. Name any three classes of Byte Stream. [10]  
Q8. Define Exception. Differentiate between Checked Exception and Unchecked Exception? [10]  
Q9. (a) Define Nested class. What are the two types of nested classes? [5]  
(b) Discuss any two bitwise operators in Java. [5]  
Q10. (a) What do you mean by polymorphism in Java? [5]  
(b) Differentiate between 'private' and 'protected' keywords in java. [5]