

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai — 600 044.

B.Sc. (CS) - END SEMESTER EXAMINATIONS APRIL-2023

SEMESTER - IV

**21UCSCT4005 - Programming in JAVA**

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

**Section B**

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Summarize the various features of Java Programming Language.
2. Distinguish between method overloading and overriding in java with examples.
3. Write a Java program to count the number of words in a given sentence.
4. Demonstrate the inheritance concept with a simple java program snippet.
5. Interpret catch block in Exception handling. Is it possible to implement multiple catch blocks? Justify it.
6. Illustrate the thread life cycle with a neat diagram.
7. Build a java program that reads a file and displays the file on the screen with line number before each line.
8. Create an applet program to display a set of concentric circles of varying radius.

**Section C**

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Write a java program to print even numbers from 1 to 100 using various loop statements.
10. Design a class to represent a bank account. Include the following members: Data Members: Name of the depositor, Account number, Type of account(Savings/Current), Balance amount in the account (Minimum balance is Rs.500.00) Methods:
  - a. To read account number, Depositor name, Type of account
  - b. To deposit an amount (Deposited amount should be added with it)
  - c. To withdraw an amount after checking balance (Minimum balance must be Rs.500.00)
  - d. To display the balance
11. Construct a java program to check the condition where the given number is less than 10 and greater than 50 afterwards you have to generate the exception out of range or else you have to calculate the square of the number and display output.

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12. Write a java program to read contents of a file and append some more text into it.
13. Create an applet program to design a greeting card to your friend birthday by displaying various shapes in different colors and greeting message in different font.

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