

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.

BCA END SEMESTER EXAMINATIONS NOVEMBER -2023

SEMESTER -III

22UACT3003 - Programming in Kotlin

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

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

1. Explain the primary traits of Kotlin that distinguish it from other programming languages.
2. How to use a while loop to find the even number in the list?
3. Write a program to find sum of the parameter values is (5,10)
4. Predict the result of applying lazy collection operations on a large collection using sequences in Kotlin.
5. Sketch a class hierarchy involving an abstract class, two concrete classes and their relationships in Kotlin.
6. Relate the advantages of using nullable types and provide advantages in handling potential null values to prevent runtime errors in Kotlin.
7. Interpret the benefits of using inline functions to remove the overhead of lambda control flow in higher-order functions.
8. Assess the impact of variance in generics on subtyping and type safety.

Section C

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

9. Explain in detail about Exception handling in kotlin with example.
10. Explain in detail String function and regular expression with examples.
11. Write a program for shape class and calculate circle & Rectangle area values.
12. Write a program for Overloading operators with examples.
13. Justify the importance of generics in preventing type casting and improving code robustness.
