

**CBCS-246**

**B. Sc. (Hon's) (Third Semester) Examination,  
Dec. 2023**

**(CBCS Course)**

**COMPUTER SCIENCE**

***Paper : 304***

***(Programming in Java)***

***Time Allowed : Three hours***

***Maximum Marks : 60***

***Minimum Pass Marks : 21***

***Note : Attempt questions of all two sections as directed.  
Distribution of marks is given with sections.***

**Section-‘A’**

**5×6=30**

**(Short Answer Type Questions)**

***Note : Attempt all five questions. One question  
from each unit is compulsory. Each question  
carries 6 marks.***

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**Unit-I**

1. Write characteristics of Java programming language.

**Or**

Differentiate between variables and key words.

**Unit-II**

2. Define constructor and its types why constructors are used in Java.

**Or**

What will be the order of execution of constructors and destructors in Java program.

**Unit-III**

3. How dynamic memory allocation is implemented in Java.

**Or**

Write a Java program to count the number of characters in a given string.

**Unit-IV**

4. Differentiate between Java applets and Java application programmes.

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**Or**

Explain Java applet life cycle.

**Unit-V**

5. Why collections are used in Java?

**Or**

Differentiate between Java interface and Java class.

**Section-'B'**

**3×10=30**

**(Long Answer Type Questions)**

*Note : Attempt any three questions. Each question carries 10 marks.*

6. Write a program in Java to print fibonacci sequence.
7. What are the object oriented programming paradigm in Java programming Language? Explain each in detail.
8. Explain the concept of process synchronization in Java. Also differentiate between process based multitasking and thread based multitasking.

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9. Explain wrapper classes and state the use of wrapper classes.
10. Explain the concept of screen tokenizer with the help of an example.