

**BACHELOR OF COMPUTER APPLICATIONS (C.B.C.S.) (2014 COURSE)**

**B.C.A. Sem-IV : WINTER : 2021**  
**SUBJECT: JAVA PROGRAMMING**

**Day :** Tuesday  
**Date :** 18-01-2022

**W-11045-2021**

**Time :** 02:00 PM-05:00 PM  
**Max. Marks:** 100

**N.B.**

- 1) Attempt any **FOUR** questions from Section – I and any **TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SAME** answer book.

**SECTION – I**

- Q.1** What are control statements in JAVA? Explain switch statement with example. (15)
- Q.2** What is a constructor? Explain default constructor and parameterized constructor with example. (15)
- Q.3** Explain the concept of method overloading with appropriate example. (15)
- Q.4** Explain the usage of ‘super’ and ‘final’ keywords while implementing inheritance. (15)
- Q.5** What is package in JAVA? Explain steps of creating, accessing and using a package in JAVA. (15)
- Q.6** a) List various methods of Applet Class that need to be implemented. (07)  
b) Compare Applet with JAVA Applications. (08)
- Q.7** Write short notes on **ANY THREE** of the following: (15)  
a) Garbage collection.  
b) JVM  
c) Data types in Java  
d) Logical operators

**SECTION – II**

- Q.8** What are different types of exceptions? Explain steps in handling arithmetic exceptions. Write a program to demonstrate the same. (20)
- Q.9** a) Write a program to read number n and display sum of all the natural numbers less than n. (10)  
b) Write a program to read a number and then obtain & display its reverse. (10)
- Q.10** Define a Class Emp with attributes like name, designation and salary. Write necessary methods to initialize, read and display the data. Also write the code to increase salary of employee by 1000. (20)

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