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

**B.C.A. Sem-IV : WINTER- 2022**

**SUBJECT : JAVA PROGRAMMING**

Day : Monday

Time : 02:00 PM-05:00 PM

Date : 19-12-2022

**W-11045-2022**

Max. Marks : **100**

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**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.
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**SECTION – I**

- Q.1** a) Explain JAVA program structure. (07)  
b) List different data types in JAVA. Explain any four data types. (08)
- Q.2** What is constructor in JAVA? Explain parameterized and copy constructor. (15)
- Q.3** What are different types of inheritance? Explain multi-level inheritance in detail. (15)
- Q.4** What is the need of interfaces? Give appropriate examples for usage of interface. Also discuss applications of interface. (15)
- Q.5** What is importance of exception handling in programming? Explain the process of exception handling in JAVA. (15)
- Q.6** Differentiate applet with applications. Discuss applet life cycle with proper diagram. (15)
- Q.7** Write short notes on **ANY THREE** of the following: (15)  
a) abstract class  
b) finalize( ) method  
c) Package  
d) finally keyword.

**SECTION – II**

- Q.8** a) Write a JAVA program to accept a number from command line and check whether it is even or odd. (10)  
b) Write a JAVA program to accept a number from command line and calculate its factorial. (10)
- Q.9** Develop a Class student to store roll\_no, stud\_name and total\_marks. Use constructor to initialize values. Also provide the parameterized constructor for the class. Write necessary methods to read and display student data. (20)
- Q.10** Write a HTML code to read user name and submit the form. Also write a code to display welcome message to user with his/her name. (20)

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