

**CDOE**  
**MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)**  
**M.C.A. Sem-I : WINTER :- 2021**  
**SUBJECT: JAVA PROGRAMMING**

**Day : Wednesday**

**Date 9/2/2022**

**W-23050-2021**

**Time : 10:00 AM-01:00 PM**

**Max. Marks: 60**

**N.B.:**

- 1) Attempt any **THREE** 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 **SAME** answer book.

---

**SECTION-I**

- Q.1** What is JVM? Explain architecture of JVM with neat diagram. **(10)**
- Q.2** What is garbage collection? Explain advantages of it. **(10)**
- Q.3** What is StringBuffer class? Explain any two methods of StringBuffer class. **(10)**
- Q.4** What is an interface? How it is different from a class? **(10)**
- Q.5** Write short notes on any **TWO** of the following: **(10)**
- a) Wrapper classes
  - b) Multidimensional arrays
  - c) User defined exception

**SECTION-II**

- Q.6** Write a Java program that shows how FileInputStream class is used for reading bytes from file and FileOutputStream class is used to write into a file. **(15)**
- Q.7** Explain vector with example. **(15)**
- Q.8** Write a Java program to find maximum and minimum element from one dimensional array. **(15)**

\* \* \* \*