Section–C   **2×14=28**

(Long Answer Type Questions)

Note :– Answer any *two* questions. You have to delimit your each answer maximum up to **500** words. Each question carries 14 marks.

10. Discuss the different types of layout managers in AWT and Swing. Explain with examples.

11. Define an exception in Java. Give examples of checked and unchecked exceptions.

12. Define a constructor in Java. What is its purpose and how is it different from a method ?

13. What is Object Oriented Programming (OOP) ? Differentiate between procedural programming and Object Oriented Programming.

BCA–16

June – Examination 2023

BCA (Part III) Examination

Programming in Java

Paper : BCA-16

Time : 3 Hours]   [*Maximum Marks : 70*

Note :– The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

Section–A   **7×2=14**

(Very Short Answer Type Questions)

Note :– Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 2 marks.

1. (i)   What is JRE ?

   (ii)   What is an Exception in Java ?

(iii) What is the purpose of the 'new' keyword in java ?

(iv) Explain the concept of an infinite loop in Java. How can you break out of an infinite loop ?

(v) Explain the purpose of comments in Java.

(vi) What is the purpose of the main( ) method in a Java Program ?

(vii) What are the features of Java that distinguish it from other programming languages ?

Section–B   **4×7=28**

(Short Answer Type Questions)

Note :– Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 7 marks.

2. Explain the concept of the garbage collector in java and how it helps manage memory ?

3. Implement a Java program to reverse a given string without using any built-in functions or libraries.

4. What is the difference between an abstract class and an interface in Java ? When would you use each one ?

5. What is an applet in Java ? How does it differ from a Java Application ?

6. What is the difference between method overloading and method overriding in Java ? Provide examples to illustrate each concept.

7. Write a short note on AWT Event Handling.

8. Explain the concept of operator precedence in Java. How does it determine the order of evaluation in complex expressions ?

9. Compare and contrast while loop, do-while loop and for loop in Java.