

Roll No. ....

Total Pages : 03

**BCA/M-20**

**1904**

**PROGRAMMING IN CORE JAVA**

**BCA-366**

Time : Three Hours]

[Maximum Marks : 80

**Note :** Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory.

**Compulsory Question**

1. (i) Explain JVM and Java Byte Code. 4
- (ii) Explain polymorphism, its advantages and types. 4
- (iii) Explain how to import a package. 4
- (iv) Explain component and containers. Also explain various types of containers. 4

**Unit I**

2. (a) Explain various features of Java. 6
- (b) Explain the concept of switch statement with the help of an example. 10
3. (a) Explain the concept of console I/O. How many ways are there to get information from user and to display output in Java ? 8

- (b) Write a program to print the prime numbers between two given numbers. **8**

## **Unit II**

4. (a) Explain static members in detail by using appropriate example. **8**  
(b) Explain various string operations by using example. **8**
5. (a) Explain Abstract class by using example. What are the characteristics of abstract classes ? **8**  
(b) Write a program to overload constructors. **8**

## **Unit III**

6. (a) Explain the purpose of super keyword by using appropriate example. **8**  
(b) Explain hierarchical inheritance with example. **8**
7. What is a package ? Explain various types of packages. Also explain various steps to add a class in the user defined package in Java by using example. **16**

## **Unit IV**

8. (a) What is the use of throws keyword In Java ? Explain with example. **8**

(b) Explain the concept of Exception handling using Multiple Catch block with example. **8**

9. Write short notes on the following :

(i) Applet Tag **6**

(ii) Layout Managers and its types. **10**

