

December 2022

BCA Vth SEMESTER

Object Technologies & Programming Using JAVA (BCA-17-301)

- Instructions:**
1. It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.
 2. Answer any four questions from Part -B in detail.
 3. Different sub-parts of a question are to be attempted adjacent to each other.

PART -A

- Q1 (a) Describe the scope of Java variables. (1.5)
- (b) What is **final** keyword used for? (1.5)
- (c) Distinguish between the methods of a thread : wait(),sleep(),yield() (1.5)
- (d) What is method overriding? (1.5)
- (e) What is the role of **this** keyword? (1.5)
- (f) List 3 built in exception classes. (1.5)
- (g) What is an abstract class? (1.5)
- (h) List three methods of String class. (1.5)
- (i) Explain '**super**' keyword. (1.5)
- (j) What is Garbage Collection? (1.5)

PART -B

- Q2 (a) Differentiate between Object Oriented and Procedure Oriented Programming (5)
- (b) Explain various features of JAVA (10)
- Q3 (a) What is a package? How do we create it? (5)
- (b) What is inheritance? Describe different forms of inheritance supported by JAVA with example (10)
- Q4 Define class. Write a program using **constructor** to create a class called "room" having two data members **length** and **breadth** and one member function **cal_area**. Create its object and calculate area. Demonstrate constructor overloading. (15)
- Q5 (a) What is an exception? Explain various keywords of exception handling mechanism (10)
- (b) Write a program to sort an array of strings. (5)
- Q6 (a) What is a File? Write a program to write data from a file to a console (10)
- (b) What is JVM? (5)
- Q7 (a) What is an interface? Explain 2 ways of creating interfaces. (10)
- (b) Explain thread prioritization (5)