

# CBGS SCHEME

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18CS45

**Fourth Semester B.E. Degree Examination, Dec.2024/Jan.2025**

## **Object Oriented Concepts**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Write the difference between procedure oriented program and object oriented program. (04 Marks)
- b. Explain the various features of OOC. (08 Marks)
- c. What is constructor? List the different types of constructors and explain. (08 Marks)

**OR**

- 2 a. What is function overloading? Write C++ program to define three overload function area( ) to find area of circle, triangle and rectangle. (10 Marks)
- b. Why friend function is required? Write a program to add two numbers using friend function. (10 Marks)

### Module-2

- 3 a. Discuss the label break and continue with example. (05 Marks)
- b. Explain the concepts of array in java with example. (07 Marks)
- c. List and explain Java Buzz words. (08 Marks)

**OR**

- 4 a. Explain different access specifiers in java with example. (10 Marks)
- b. What is nested class? Explain how nested class can be defined as private of enclosing class with example. (10 Marks)

### Module-3

- 5 a. What is an exception? With syntax explain exception handling mechanism. (10 Marks)
- b. Define package. What are the steps involved in creating user defined package with an example. (10 Marks)

**OR**

- 6 a. Compare construct method overloading and overriding with example. (10 Marks)
- b. What are the uses of inheritance? Explain inheriting data members and method with a program. (10 Marks)

### Module-4

- 7 a. What is thread? Explain two ways of creating a thread in JAVA with eg. (10 Marks)
- b. Explain synchronization using synchronized methods. (10 Marks)

**OR**

- 8 a. What is an applet? Explain the skeleton of an applet. Enlist applet tags. (10 Marks)
- b. What is meant by deadlock? How to avoid deadlock? Give example. (10 Marks)

**Module-5**

- 9 a. Explain the HTML applet with syntax and example. (10 Marks)  
b. Explain advantages of swing over AWT and two key features of swings. (10 Marks)

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OR

- 10 a. Explain a simple swing application with program. (10 Marks)  
b. Explain with syntax:  
i) JScrollPane  
ii) Jlist  
iii) ImageIcon  
iv) JTextField  
v) JtabbedPane. (10 Marks)

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