



**J.C. Bose University of Science and Technology, YMCA**  
**Faridabad, Haryana**  
**SESSIONAL -2 Nov'25**  
**B.Tech CE51,52, IT5**

**Subject Code: PCC-CS-503**

**Time: 1.5 Hours**

**Subject: Object Oriented  
Programming  
Maximum Marks: 30**

- Q1. a) Explain the concepts of decomposition and abstraction in software design. Discuss different kinds of abstractions. (5) (CO1)
- b) Describe the concepts of Subtyping and Wildcards in Generics. Give suitable examples. (5) (CO4)
- Q2. What are Design Patterns? Explain the classification of design patterns. (10) (CO3)
- Q3. a) Explain the List and Queue Interfaces in Java Collections Framework. (5) (CO4)
- b) Differentiate between AWT and Swings. (5) (CO4)