

**RA**

**Code No: 137SG**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, September - 2021**

**DESIGN PATTERNS**

**(Computer Science and Engineering)**

**Time: 3 hours**

**Max. Marks: 75**

**Answer any Five Questions  
All Questions Carry Equal Marks**

---

1. How design patterns solve design problems? Explain. [15]
2. Explain the catalog of design patterns. [15]
3. Discuss about supporting multiple window systems in Lexi's design. [15]
4. Describe supporting multiple look-and-feel standards in Lexi's design. [15]
5. Explain about the consequences, implementation and sample code of singleton pattern. [15]
6. Describe the consequences, implementation, sample code and known uses of Prototype pattern. [15]
7. Explain consequences implementation, sample code and known uses of Adapter pattern. [15]
8. Explain the following:  
a) Chain of Responsibility pattern  
b) State pattern. [7+8]

**---ooOoo---**