



R18 Regulation

Subject code: 2E8EB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech VIII Semester Regular Examinations, June 2022

DESIGN PATTERNS

(COMPUTER SCIENCE & ENGINEERING)

Maximum Marks: 70

Date:17.06.2022 Duration: 3 hours

- Note:
- 1.This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Compare and contrast a Design Pattern and a Frame work
- 2 List the Creational design patterns and mention its purpose in soft design.
- 3 List the user interfaces required in software system design.
- 4 What is encapsulation explain with an example.
- 5 Define a proxy pattern
- 6 What are the applicability of COMPOSITE pattern?
- 7 What is the intent of COMMAND patterns?
- 8 List the Uses of the Iterator pattern.
- 9 Define a STRATEGY pattern
- 10 Define Encapsulating Variation

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 A. What is a design pattern? Discuss how to describe a design pattern in a consistent format. 5M
B. Explain the step-by-step approach applied to use a design pattern effectively. 5M
OR
- 12 A. Apply Model/View/Controller (MVC) to build user interfaces in Smalltalk-80. 5M
B. Discuss the approaches to find a suitable design pattern for a given problem. 5M
- 13 A. Explain the seven problems in Lexi's design. 5M
B. Discuss ABSTRACT FACTORY pattern with an example 5M
OR
- 14 A. Discuss BUILDER Object Creational pattern with an example 5M
B. Discuss SINGLETON pattern with an example 5M
- 15 Discuss how a DECORATOR pattern is useful for TextView object with Scroll bars by in a text editor. 10M
OR
- 16 A. Explain the Applicability of a Bridge pattern. 5M
B. Summarize the Consequences of Composite pattern 5M

- 17 A. Justify Behavioral pattern are important in complex control flow at run time. 5M
B. Explain applicability of CHAIN OF RESPONSIBILITY 5M
OR
- 18 A. What is a MEDIATOR pattern explain with an example 5M
B. Which class of pattern is useful to Digital Clock that displays the time explain it. 5M
- 19 Explain different states of TCP Connection with a STATE pattern and list its consequences. 10M
OR
- 20 A. Explain about TEMPLATE METHOD. 5M
B. Discuss what are the expectations of designer from Design Patterns. 5M