

**MALLA REDDY ENGINEERING COLLEGE(AUTONOMOUS)**

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)

Maisammaguda, Dhulapally,(Post Via kompally), Secunderabad-500 100.

**IV B.TECH I SEM SUPPLEMENTARY EXAMINATIONS, APRIL - 2017****SUBJECT: DESIGN PATTERNS****(BRANCH: Common to CSE & IT)****Time: 3 Hours****Max Marks:75****PART-A****I. Answer all the questions****5 x1=5M**

1. Define formatting?
2. What is the benefit of Factory pattern?
3. Define structure patterns.
4. Define behavioral pattern?
5. Summarize an invitation.

**II Answer all the questions****10 x 2=20M**

1. Distinguish a Class and an Object?
2. What is recursive composition?
3. Who are the participants in factory method?
4. Who are the different participants involved in the builder pattern.
5. Define Intent and Consequences of Bridge Pattern?
6. List the uses of decorator pattern?
7. List the various participants involved in design of the interpreter.
8. When to use chain of responsibility pattern?
9. Discuss in brief parting thought.
10. List any two ways the Design Pattern affect the way Object-Oriented Software is designed?

**PART-B****Answer all the questions****5 x 10=50M**

1. Discuss a step-by-step approach how to use a design pattern.

**[10]****[OR]**

2. How Design Patterns Solve Design Problems, Explain in detail?

**[10]**

3. With an example, explain the implementation of abstract factory pattern. [10]  
[OR]
4. Who are the different participants involved in the builder pattern. What relation exists between them? Explain it in detail. [10]
5. Explain the implementation of façade pattern with sample code and write consequences of façade pattern. [10]  
[OR]
6. Discuss the intent, motivation and application of composite design pattern. [10]
7. Write sample code, structure and applications of Visitor pattern. [10]  
[OR]
8. a) Explain the uses of Command Design Pattern and its structure with Class diagram. Also explain the implementation issues? [5+5]  
b) Discuss about intent, motivation, structure, applicability and consequences of a Mediator Behavioral Pattern?
9. Explain the Pattern Community of the Design Patterns? [10]  
[OR]
10. What is a Common Design Vocabulary? [10]