Code: CS6T2

## III B.Tech - II Semester – Regular/Supplementary Examinations March 2020

## DESIGN PATTERNS (COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART - A

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1.

- a) What is a design pattern?
- b) How are patterns classified?
- c) What is meant by consequences?
- d) Explain about command class and sub class.
- e) What is the purpose of recursive composition explain?
- f) Draw the structure of factory method.
- g) What is abstract factory?
- h) Explain the meaning of intent in design patterns and why it is used?
- i) List any two structural patterns.
- j) Write the purpose of behavioral pattern.
- k) Indicate the purpose of visitor and observer in behavioral pattern.

## PART - B

| Answer any <i>THREE</i> questions. | All questions carry equal marks. |
|------------------------------------|----------------------------------|
|                                    | $3 \times 16 = 48 \text{ M}$     |

| 2. | What are the common causes of re-design? Explain how    | ' to         |
|----|---|--------------|
|    | use design patterns in detail?                          | 16 M         |
| 3. | a) Explain Designing Document Editor in detail.         | 8 M          |
|    | b) How can you explain your understanding about mult    | iple         |
|    | look and feel standards.                                | 8 M          |
| 4. | a) What are consequences of Builder pattern? Explain    |              |
|    | Builder pattern implementation.                         | 8 M          |
|    | b) Explain the Intent, Implementation and known uses o  | $\mathbf{f}$ |
|    | Singleton pattern.                                      | 8 M          |
| 5. | Examine the terms Intent, Applicability, Sample code, a | nd           |
|    | known uses of the following Patterns:                   | 16 M         |
|    | a) Adapter b) Flyweight                                 |              |
| 6. | a) Explain various visitor design patterns.             | 8 M          |
|    | b) Validate about pattern community.                    | 8 M          |