M.E. First Semester (Information Technology) (Full Time) (C.G.S.)

13422 : Elective-I : Software Engineering Methodologies : 1 NMEF 5

P. Pages : 2 | AW - 3474

Time : Three Hours | Max. Marks : 80

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Notes :
1. Due credit will be given to neatness and adequate dimensions.
2. Assume suitable data wherever necessary.
3. Diagrams and chemical equations should be given wherever necessary.
4. Retain the construction lines.
5. Illustrate your answer necessary with the help of neat sketches.
6. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. a) What is spiral model? Why it is called as spiral? What are its advantages and disadvantages. **7**

b) Explain CMMI and also explain its levels. **7**

OR

2. a) What do you mean by component based software Engineering? What are its advantages. **6**

b) Explain the following. **8**
i) Unified process. ii) Agile process.

3. a) Explain the functional and Non-functional requirement with example. **6**

b) What are the characteristics of requirement qualities. **7**

OR

4. a) What is requirement traceability? Explain its importance. **6**

b) What do you mean by domain requirement? Explain in detail with suitable example. **7**

5. a) Explain the Model-Driven-Architecture (MDA). **6**

b) Explain the goals and features of the UML. **7**

OR

6. a) What is OCL? Why is it needed? What collection types are supported by OCL? Explain. **6**

b) Explain the purpose of reflection identities and extensions packages in MOF. (Meta object facility). **7**

SECTION – B

7.	a)	What is actor generalization? Explain "actor generalization" with examples.	7
	b)	What do you mean by lifeline object? Explain with suitable example.	7

OR

8.	a)	Explain how to use case diagram are identified. What are types of actors? What is relationship between functional requirement and use case.	7
	b)	Explain dynamic behaviour of a system using sequence diagram.	7
9.	a)	What are steps to be consider for design of software.	7
	b)	Explain following. i) Refinement. ii) Abstraction.	6

OR

10.	a)	State and explain the key design principles of software Architecture.	6
	b)	Explain the advantages of abstract data type styles and repository.	7
11.	a)	Explain the utilization of boundary class with suitable example in detail.	7
	b)	What do you mean by modeling associations? Explain in detail.	6

OR

12.	a)	What do you mean by lifeline object? Explain with suitable example.	7
	b)	Explain relation between cohesion and coupling of objects.	6

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