

Code No: D- 2490/N/AICTE

**FACULTY OF ENGINEERING**

**B.E. CSE (AI&ML) IV-semester (AICTE) (New) (Main) Examination,  
September/October - 2022**

**Subject: Software Engineering**

**Max. Marks: 70**

**Time: 3 Hours**

**Note: (i) First question is compulsory and answer any four questions from the remaining six questions. Each Questions carries 14 Marks.**

**(ii) Answer to each question must be written at one place only and in the same order as they occur in the question paper.**

**(iii) Missing data, if any, may be suitably assumed**

1. (a) Difference between a unified process phase and unified process workflow?  
(b) How Agile process is different from traditional sequential process?  
(c) Describe requirement Elicitation/ What techniques are used by the engineers in this phase?  
(d) What is a well formed design class?  
(e) Explain importance of finding cohesion between the modules in component level design.  
(f) How are verification and validation important individually?  
(g) What is metric? Explain the metrics for Design model?
2. (a) Explain significance of process framework? What are the SEA'S that are populated in each framework activity?  
(b) What do various levels of CMM represent? What are the key process areas associated with each level of CMM's
3. (a) Explain the various principles to be used for modeling practice.  
(b) Explain the system engineering process and its activities?
4. (a) What are design classes? Explain characteristics of a well formed Design class?  
(b) What is Pattern based software design? Describe any two patterns known to you in addition to a general pattern template?
5. (a) Illustrate the process of converting or mapping Data flow (diagrams) into software Architecture?  
(b) Explain various architectural styles and patterns in detail.
6. (a) Explain about testing for specialized Environments, Architectures & Applications?  
(b) Enumerate the metrics used for Testing & Maintenance?
7. (a) Explain the various methods of designing conventional components?  
(b) Explain the concept of Basic path testing in detail with the help of an example?

\*\*\*\*\*