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**Total No. of Questions : 08**

**M.Tech. (IT) (2015 & Onwards)/(CSE Engg.)/(E-Security) (Sem.-1)**

# ADVANCE SOFTWARE ENGINEERING

**Subject Code : CS-501**

**Paper ID : [E0681]**

**Time : 3 Hrs.**

**Max. Marks : 100**

**INSTRUCTION TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

- Q1. Describe the components and quality which is necessary for the documents of software specification. Justify “*Increased cohesion and decreased coupling do lead to good software design*”.
- Q2. Describe the importance of software Engineering. What should be steps taken under the process of developing a software system?
- Q3. What are the differences between verification and validation in software development? Explain the term Configuration management.
- Q4. Write short note on Software failure, Black box testing, White box testing and Stress Testing. What is the difference between cohesion and coupling?
- Q5. Explain the various types of models which are used in software Engineering. Give a description of prototyping model.
- Q6. What is psp? What are the advantages of psp in software engineering? What are the unique characteristics of cleanroom software engineering techniques?
- Q7. What is the concept of Six Sigma? What are the 5 steps of the Six Sigma improvement model?
- Q8. What are various kinds of invariants and rulesets used in UML? What are the different types of implementation terms in UML?