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B.Tech  
PCS3G001

**3<sup>rd</sup> Semester Regular Examination 2018-19**  
**SOFTWARE ENGINEERING**

BRANCH : CSE

Time : 3 Hours

Max Marks : 100

Q.CODE : E970

**Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.**

**The figures in the right hand margin indicate marks.**

**Part- I**

**Q1 Short Answer Type Questions (Answer All-10) (2 x 10)**

- What are the merits of incremental model?
- Explain Software Crisis.
- What are the golden rules for User Interface Design?
- What are non-functional requirements?
- Distinguish between verification and validation.
- What are the characteristics of good SRS document?
- What is Cyclomatic complexity? What is its purpose?
- What is software reliability? Define.
- What is regression testing? Give example.
- What is the importance of software reviews?

**Part- II**

**Q2 Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)**

- Elaborate on the changing nature of software in detail.
- State and explain various software myths.
- Elaborate prototype model with its advantages and disadvantages.
- What are the feasibility studies for requirements engineering process?
- Explain the methods of System Testing.
- What is the goal of requirements analysis phase? Give reasons why the requirements analysis phase is a difficult one.
- Explain about different black box testing.
- How system modeling is achieved using UML? What is the importance of Use-case diagrams in software development
- What is software quality? Explain MC Calls and FURPS quality factors.
- What is Behavior Modeling? Draw a sequence diagram for at least two scenarios for account holder Transaction with Bank. Assume suitable scope and indicate it.
- Discuss the software metrics that can be applied to the qualitative assessment of software quality and the side effects that occur during maintenance phase
- Explain various software quality standards and discuss how to assure them.

**Part-III**

**Q3 Long Answer Type Questions (Answer Any Two out of Four) (16)**  
Why spiral model is considered as meta model? With neat sketch explain the model properly. Mention its advantages and disadvantages.

**Q4** Explain clearly about software requirements document. **(16)**

**Q5** Differentiate between functional and non-functional requirements with suitable examples. **(16)**

**Q6** Explain about risk projection and risk management. **(16)**