

B.E. Computer Science & Engineering Fifth Semester  
**CSE504 - Software Engineering**

P. Pages : 1

Time : Three Hours



**GUG/W/18/1609**

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
  2. Due credit will be given to neatness and adequate dimensions.
  3. Assume suitable data wherever necessary.

1. a) What is software? Explain the characteristics of software. 8  
b) Explain process framework and umbrella activities with suitable diagram. 8  

**OR**
2. a) Explain waterfall model with neat diagrams. Write its drawbacks. 8  
b) Explain with diagram the RAD process model with advantages and disadvantages. 8
3. Write short note on **any four**. 16  
i) Managing Software Projects                      ii) Software Measurements  
iii) Metrics for Software Quality                  iv) Decomposition Techniques  
v) Software Project Estimation  

**OR**
4. a) Explain Software Reengineering process Model. 8  
b) Difference between Reverse engineering and forward engineering. 8
5. a) Explain the essence of software engineering practice and the core principles. 8  
b) Explain all planning practices. 8  

**OR**
6. a) Explain system engineering and the elements of computer based systems in detail. 8  
b) Explain Hatley-Pirbhai Modeling of system modelling with suitable diagram. 8
7. a) What is requirement engineering? Explain the tasks of requirement engineering. 8  
b) Explain eliciting requirements in detail. 8  

**OR**
8. a) Explain Analysis Modeling approaches in detail. 8  
b) Explain Design Model of Design Engineering. 8
9. a) What do you mean by software testing? Explain the strategic issues of Testing. 8  
b) Differentiate between validation testing and verification testing. 8  

**OR**
10. a) What are software testing fundamentals? And explain Black-Box testing. 8  
b) Explain the object-oriented software testing methods. 8

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