

**BT-6 / M-18**  
**SOFTWARE ENGINEERING**  
**Paper-IT-354**

*Time allowed : 3 hours*                      *[Maximum marks : 100*

*Note:- Attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.*

**Unit-I**

1. What is the difference between Software Engineering and Traditional Engineering? Discuss Spiral model along with its advantages. What are the software risks identified by Boehm?                      20
2. (a) Explain the cost drivers and EAF of the intermediate COCOMO model.  
(b) What is project metrics? Explore the different project estimation techniques.                      10+ 10 = 20

**Unit-II**

3. (a) Explain the role of functional independence, coupling and cohesion with respect to modular design.                      10+10=20  
(b) What is architectural design? How requirements are mapped towards software architecture?                      10+10=20
4. Write note on the following:  
(a) Partitioning software  
(b) Behavioral modeling

(2)

- (c) Control flow model
- (d) Data dictionary                      4×5 = 20

**Unit-III**

5. What are the objectives of software testing? Discuss the various types of testing strategies.                      20
6. (a) What do you mean by testability? Discuss testing principles.  
(b) Write a detailed note on software reverse and software forward engineering.                      4×5 = 20

**Unit-IV**

7. Who should do quality assurance? Mention the goals of software quality group and also norms for formal technical review meetings.                      20
8. What are the measures of software reliability and availability? Discuss ISO 9000 quality standards.                      20