

Sem-V / IT / C-scheme / Nov-2025 / Date-19/11/25 PP-98255 1/1

(3 Hours)

[Total: 80 Marks]

- NOTE: (1). Question number 1 is compulsory.  
(2). Attempt any three questions from the remaining.  
(3). Assume suitable data wherever necessary.

- Q1. Solve any Four out of Six. (Each question carries 5 marks) (20)
- (a) Explain software Engineering process and applications of software?
  - (b) Discuss why RAD software process model is suitable for small sized Projects?
  - (c) Explain the activities involved in software requirement analysis?
  - (d) Explain 3 P's in software Project spectrum?
  - (e) Explain about software size estimation Techniques?
  - (f) Explain with example about WBS in software Engineering?
- Q2. (a) Explain stages of Software development life cycle and levels of CMM In detail? (10)
- (b) Explain about Software requirement specification with example? (10)
- Q3. (a) Draw and explain with a suitable example state transition diagram, Activity diagram and use case diagram? (10)
- (b) Explain difference between coupling and cohesion? (10)
- Q4. (a) Explain in detail the Software configuration Management Process and benefits of SCM? (10)
- (b) Explain the steps of software quality assurance plan? (10)
- Q5. (a) Explain about Project scheduling technique in detail, with example about PERT technique? (10)
- (b) Explain about Function point Estimation with example? (10)
- Q6. (a) Write a note on Software Re-engineering and reverse engineering? (10)
- (b) Explain in detail different methods of software testing? Discuss the difference between black box and white box testing? (10)

\*\*\*\*\*