Q.P code : 36618

(3 Hours)

Total Marks:80

N.B : (1) Question No. 1 is compulsory
. (2) Attempt **any three** questions out of remaining five.

1. Answer all questions 20
   (a) What are the objectives of Requirement Analysis?
   (b) What is the significance of configuration items in SCM? List some examples of general SCIs
   (c) Describe the different ways in which a Spiral model is better than Waterfall model
   (d) What is SCRUM? Explain the different roles in SCRUM

2. (a) Explain how an Analysis model is translated to Design models. Explain in detail the design quality guidelines and attributes 10
   (b) What are the benefits of Component-Based Development model? With a neat diagram and explain the different phases of Component Based Development 10

3. (a) Compare the main features and practices at each of the key phases of the agile approach and more traditional approaches of the software development life cycle 10
   (b) Explain Basis Path testing with the following details: Flow graph notations, Cyclomatic complexity and test case derivation. 10

4. (a) Draw the DFD up to Level 2 for a Restaurant Management System which has online food ordering, food delivering, GST calculation, invoice creation, and payments subsystems. 10
   (b) Explain the white box and black box testing methods suiting the above system. (Restaurant management) 10

5. (a) Explain the different Software Quality and Reliability metrics 10
   (b) Describe how version control and change control are carried out during SCM? 10

6. Write short notes on **(any two)** 20
   (a) Risk Management
   (b) Software Maintenance
   (c) Test Driven Development
   (d) User Interface Design considerations