



Time 3 hours

Marks 80

Note: Question No. 1 is Compulsory

Attempt any 3 Questions from the Remaining Questions.

- Q.1 20
- a) Explain Capability Maturity Model.
  - b) What is Process Pattern? Create process pattern for approach that may be applicable when stakeholders have general idea of what must be done but unclear software requirements.
  - c) What is Alpha testing and Beta testing? Explain.
  - d) What are the different design principles?
- Q.2 10
- a) What are the different categories of testing under strategy for testing conventional software. Explain all in detail. 10
  - b) List design concepts in software engineering. Explain Coupling and Cohesion . What is Preferred in the Component and why? 10
- Q.3 10
- a) Whenever You work for a big client and they enforces their very formal approach on vendors and You work on fixed-scope, fixed-price contracts and client doesn't expect (for any reasons) rapid change in the scope, which process model you will select for development of product in such situation and why? Explain that Process Model in detail. 10
  - b) How agile methodology is different than traditional software development approach? Explain SCRUM in detail. 10
- Q.4 10
- a) What are the different requirement engineering tasks? Why identifying software requirements is difficult? 10
  - b) Draw Use Case Diagram for Restaurant Management System. 05
  - c) Draw DFD upto Level 1 for course enrollment system which has marks verification , course eligibility check & students detail verification 05
- Q.5. 10
- a) Mention reasons for project delay. What are the risks associated with project delay? Perform Risk assessment and prepare RMMM plan for the same. 10
  - b) What is the need of SCM in software engineering? Explain SCM Process. 10
- Q.6. Write short note on any Two 20
- a) Software Measurement
  - b) SQA activities
  - c) Spiral model & Compare with Prototyping model