

1. All questions are **compulsory**.
2. All questions carry **equal** marks.
3. Draw **neat, labelled diagrams** wherever necessary

**Q.1 Attempt the following (Any Four)**

[20 Marks]

- a. What is Software Engineering? Explain Software Process.
- b. Explain Waterfall Model with advantages and disadvantages.
- c. Explain different phases of SDLC life cycle.
- d. What is SRS? State the different components of SRS.
- e. What is a Use-case diagram? Explain different components.
- f. Explain Unified Process Phases.

**Q.2 Attempt the following (Any Four)**

[20 Marks]

- a. What is Architectural Design?. Explain any two types with advantages and disadvantages.
- b. Write short notes on Coupling and Cohesion.
- c. Write short notes on Project Metrics and Process Metrics.
- d. Explain COCOMO-II model.
- e. What is software sizing? Explain four different approaches.
- f. Write a short note on Time-Line Chart.

**Q.3 Attempt the following (Any Four)**

[20 Marks]

- a. Explain Risk projection and Risk Refinement.
- b. Explain RMMM.
- c. Write a short note on SQA. Explain activities of SQA.
- d. Define SCM and their elements.
- e. What is Black Box Testing? Explain Equivalence Partitioning.
- f. Calculate Cyclomatic Complexity of below undirected graph using both the formula.

