Software Engineering - Question Paper 1

1. Define Software Engineering and explain its importance in the development of large-scale systems.

2. Explain the Software Development Life Cycle (SDLC). Discuss different Software Process Models.

3. What are functional and non-functional requirements? Provide examples of each.

4. Discuss the importance of a Requirements Specification Document in the Software Development process.

5. Describe the process of Requirements Gathering and Analysis.

Software Engineering - Question Paper 2

1. What is the difference between high-level design and low-level design? Explain with examples.

2. Discuss the principles of good software design. How do design patterns improve the design process?

3. What are UML diagrams? Explain the significance of Use Case, Class, and Sequence diagrams in system design.

4. What are the common practices for coding in software engineering? Discuss the importance of coding standards.

5. Explain the concept of Test-Driven Development (TDD) and its benefits. What are the main types of testing in software engineering?

Software Engineering - Question Paper 3

1. What are the different types of software maintenance? Explain each type with examples.

2. Discuss the importance of bug tracking in software maintenance. What tools are commonly used for this purpose?

3. Explain the concept of Risk Management in software projects. How can risks be mitigated during the software development lifecycle?

4. What are estimation techniques like COCOMO and Function Point Analysis? Discuss how they help in project management.

5. Describe the Agile methodology. How does it differ from traditional SDLC models like Waterfall?