

Tribhuvan University
Institute of Science and Technology
2076

Bachelor Level / sixth-semester / Science Full marks: 60 **Computer Science and Information Technology(CSC364)** Pass marks: 24 (Software Engineering) Time: 3 hours Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt any Ten questions.(10 x 6 = 60)

1. Explain system modeling with suitable examples.
2. What is a software process model? Discuss the waterfall model with its merits and demerits.
3. Discuss different types of risks which are likely to arise in software projects. Briefly explain the risk analysis stage during the risk management process.
4. Briefly explain functional, non-functional, and domain requirements.
5. What are rapid prototyping techniques? Briefly explain different rapid prototyping techniques.
6. What is the formal specification? Discuss interface specification in detail.
7. What are the activities of the architectural design process? Discuss abstract machine models.
8. What is modular decomposition? Discuss object oriented model of decomposition.
9. Discuss the importance of use case diagrams in object-oriented development. Draw a use case diagram for the library system.
10. What is cleanroom software development? Discuss the characteristics of cleanroom software development.
11. Discuss path testing with suitable examples.
12. Write Short notes on:
 - a. Reliability validation
 - b. Reverse engineering

