

Tribhuvan University
Institute of Science and Technology
2075

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 six questions. (10x6=60)

1. Suppose you are a Software Engineer of "ABC Software Company". You are developing large numbers of software. Have you faced any problems? Give your idea.
2. What is a waterfall model? Describe the activities of the waterfall model and also mention its drawbacks.
3. What is project planning? Explain the types of project plan.
4. Differentiate between functional and non-functional requirements of software engineering requirements.
5. Explain why, for large systems development, it is recommended that prototypes should be throw-away prototypes.
6. Explain formal specification in the software development process.
7. What is a repository model? Explain its advantages and disadvantages.
8. Draw a class diagram of the Library Management System [Use your own assumptions].
9. Explain validation and verification planning.
10. Compare between top down and bottom up testing.
11. What is reverse engineering? Describe reverse engineering process.
12. Write short notes on (any two):
 - a) Security assessment
 - b) Expert judgment
 - c) System and their environment