

**Tribhuvan University  
Institute of Science and Technology**

**2071 (I)**

Bachelor Level/ First Year/ First Semester/ Science

**Computer Science and Information Technology (CSc. 351)**

(Software Engineering)

Full Marks: 60

Pass Marks: 24

*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

(10x6=60)

1. What is software? Discuss generic products and bespoke products with example. Discuss functional and non-functional system properties with example.
2. What is software process model? Discuss reuse-oriented development in detail.
3. Discuss the importance of project management. What are the different sections of project plan?
4. Discuss requirements elicitation and analysis activity of requirements engineering process.
5. Discuss evolutionary prototyping and throw-away prototyping in the software process.
6. Why do we need formal specification? Discuss behavioral specification in detail.
7. What are the advantages of designing and documenting software architecture? What is repository model?
8. Discuss the use of control models. Differentiate between centralized control and event based control.
9. Discuss sequence diagram with suitable example.
10. What is verification and validation? Briefly explain verification and validation planning.
11. What is integration testing? Differentiate between top-down and bottom up integration testing.
12. Write short notes on:
  - a) Functional Point
  - b) Source Code Translation