TRIBHUVAN UNIVERSITY

FACULTY OF MANAGEMENT

Office of the Dean

September 2017

Full Marks: 40

Time: 2 hrs.

BIM / Sixth Semester / IT 224: Software Engineering

Candidates are required to answer all the questions in their own words as far as practicable.

Group "A"

1. **Brief Answer Questions:**   *[10 × 1 = 10]*

    i.   Define software.

    ii.   What is software prototype?

    iii.   What is the importance of transition phase of RUP?

    iv.   Define the term ethnography.

    v.   Define design pattern.

    vi.   Define repository model.

    vii.   Why is version management done?

    viii.   Write the benefits of involving end-users in release testing.

    ix.   Differentiate between structural model and dynamic model.

    x.   Define socio-technical system.

Group "B"

Exercise Problems: *[5 × 4 = 20]*

2. Write different test cases used to check queue (FIFO) program.

3. List the functional requirements for online shopping system.

4. In library system any person can apply for membership. Once the person gets membership, books can be issued. To issue book member must provide membership card. Library system verifies validity of the card and if card is valid, book is issued. While returning books library system checks due date of the books and charges fines for overdue books. Members can also search and reserve books by providing card number to the system. Draw Use case Diagram and Sequence Diagram for above scenario.

5. What is legacy system? List issues related with legacy system.

6. Explain product backlog with an example.

Group "C"

Comprehensive Questions: *[2 × 5 = 10]*

7. What is security specification? Explain preliminary risk assessment process for security assessment.

8. What is software engineering? Explain differences between software engineering and other engineering disciplines.

❈❈❈