



**Tribhuvan University**  
**Faculty of Humanities & Social Sciences**  
**OFFICE OF THE DEAN**  
**2024**

**Bachelor in Computer Applications**  
**Course Title: Software Engineering**  
**Code No: CACS 253**  
**Semester: IV**

**Full Marks: 60**  
**Pass Marks: 24**  
**Time: 3 hours**

**Candidates are required to answer the questions in their own words as far as possible.**

**Group B**

**Attempt any SIX questions.**

**[6×5 = 30]**

- ~~1.~~ Describe the challenges faced in software engineering. [5]
3. Explain the principles and practices of Extreme Programming (XP) in software development and discuss its significance in modern software engineering methodologies. [5]
- ~~4.~~ What is regression testing? How test cases can be designed? Explain. [2+3]
- ~~5.~~ What is user interface design? Describe its main principles and the impact of a well designed UI on user experience and software success. [1+4]
6. Discuss the relationship between programming languages and development tools in software engineering, highlighting how they complement each other. [5]
7. What is Capability Maturity Model (CMM)? Describe levels of CMM. [1+4]
- ~~8.~~ Explain the concept of versioning in software engineering and discuss its importance in software development and maintenance. [5]

**Group C**

**Attempt any TWO questions.**

**[2×10 = 20]**

- ~~9.~~ Discuss Computer-Aided Software Engineering (CASE) tools, their types, features, and the benefits they bring to the software development process. Provide examples of popular CASE tools and explain how they are used in various stages of the software development lifecycle. [10]
- ~~10.~~ Explain the processes of requirements validation and requirements specification in the context of software development. Highlight their significance, methods used, challenges encountered, and provide examples to illustrate their application [4+6]
11. Discuss the concept of modular decomposition in software engineering. Explain its importance, the principles guiding effective modular decomposition, and provide examples to illustrate how modular decomposition can be applied in practice. [2+2+2+4]