

Tribhuvan University  
**Institute of Science and Technology**  
 2082  
 ☆

Bachelor Level / Third Year /Fifth Semester/Science  
**Computer Science and Information Technology (CSC315)**  
 (System Analysis and Design)  
**(OLD COURSE)**

Full Marks: 60  
 Pass Marks: 24  
 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.

**Section A**

**Attempt any TWO questions.**

**(2 × 10 = 20)**

1. List two advantages and disadvantages of the decision tree respectively. Develop the decision tree for the following scenario: [4+6]  
 A candidate will get free access to the database if registered and is above 20 years of age. The candidate is classified as general and special. The general candidate will get access to limited resources whereas the special candidate will get access to all resources.
2. Differentiate between forms and reports. Explain general guidelines for designing forms and reports. [2+8]
3. Where do you think prototyping model should be used? Explain with an example. List its advantages and disadvantages. [6+4]

**Section B**

**Attempt any EIGHT questions.**

**(8 × 5 = 40)**

4. How do you think CASE tools help in system development? Explain. [5]
5. Explain any two methods of requirement determination. [5]
6. Define Net Present Value, Return on Investment, and Break Even Point. [5]
7. Explain the process of database design. [5]
8. What are the different types of maintenance? Explain. [5]
9. Draw the use case diagram of an online library management system. [5]
10. Briefly explain the steps in managing the information systems project. [5]
11. Explain the basic characteristics of object-oriented systems. [5]
12. Write short notes on: [2×2.5=5]
  - a. Usability
  - b. Black box testing