

# TRIBHUVAN UNIVERSITY

2081

Bachelor Level (4 Yrs.)/Science & Tech./IV Year  
Computational Course (COM 408)

Full Marks: 50

Time: 1½ hrs.

*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. Define GIS. Differentiate between spatial and non-spatial data. How remote sensing can be used in water resources management? [2+4+4]
2. Define cryptography? Why is it required? Explain about symmetric key with an example. [2+3+5]
3. What are the basic characteristics of a computer? Differentiate between analog and digital computers with examples. [4+6]

## Section B

Attempt any FIVE Questions.

[5×6=30]

4. Briefly explain about process management by operating system [6]
5. Explain about different network topologies. [6]
6. Highlight on the uses of internet, provide any two examples. [6]
7. Perform the following conversions. [3+3]
  - a.  $(87A)_{16} = (?)_{10}$
  - b.  $(1123)_8 = (?)_2$
8. Differentiate between database and data warehouse. Explain the need of data mart. [3+3]
9. What is the use of multimedia? Explain about graphic and animation. [2+4]
10. Write short notes on [3+3]
  - a. System Software
  - b. Security threat