



**Tribhuvan University  
Institute of Science and Technology  
2072**

Bachelor Level/ First Year/ First Semester/ Science  
**Computer Science and Information Technology (CSc. 101)**  
(Introduction to Information Technology)  
**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.

**Long Questions**

**Attempt any two questions: (2 × 10=20)**

1. What is input device? Discuss MICR. Differentiate between OCR and OMR.
2. Discuss different types of computer software with example.
3. Define network protocol. Discuss different types of network topologies along with merits and demerits.

**Short Questions:**

**Attempt any eight questions: (8 × 5 = 40)**

4. Discuss different characteristics of computers.
5. Subtract  $(101111)_2$  from  $(1100001)_2$
6. Differentiate between compiler and interpreter. Is it possible to run a computer system without operating system?
7. Discuss the importance of storing data in a database.
8. Why do we need to convert data into signal? Discuss analog and digital signal.
9. What is network protocol? Why do we need it?
10. What is domain name? Why is it different from ip address?
11. What is multimedia? Discuss its uses.
12. Discuss data warehousing and data mining along with advantages.
13. How can we use IT in business and industry? Explain.