

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

**Bachelor Level / first-semester / Science**  
**Computer Science and Information Technology(CSC109)**

**Full marks: 60**

**Pass marks: 24**

**(Introduction to Information Technology) 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.**