

Tribhuvan University  
Institute of Science and Technology  
2078



Bachelor Level / First Year/ First Semester/ Science  
**Computer Science and Information Technology (CSc. 109)**  
(Introduction to Information Technology)  
**(NEW 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. Differentiate analog computer with digital computer. What is CPU and how it works? What does an instruction cycle in CPU consists of? (3+4+3)
2. What is computer network? Discuss different types of data transmission media in computer network with their advantages and disadvantages. (2+8)
3. What is database management system? Why database management systems are used. Discuss the database system architecture. (3+2+5)

**Section B**

**Attempt any Eight questions:**

**(8×5 = 40)**

4. What is cache memory? How it is different from register? (3+2)
- ~~5.~~ Discuss about the source data entry device with example. (5)
- ~~6.~~ How binary addition is done? Show binary addition of (11001) with (11011). (5)
7. What is software? How it differs from hardware? Why software is needed? (2+2+1)
8. Describe the functionalities of operating system. (5)
9. What is internet? Describe about the internet architecture. (1+4)
10. Define multimedia. Discuss the applications of multimedia. (2+3)
11. Differentiate security attack from security threat. How virus affects computer? (3+2)
12. Write short notes on: (2.5+2.5)
  - a. GIS
  - b. E-commerce