

**Tribhuvan University**  
**Institute of science and Technology**  
2072  
☆

Bachelor Level / Fourth Year / Eight semester / Science  
**Computer Science and Information Technology-(CSc.459)**  
**(Geographical Information System)**

Full Mark: 60  
Pass Mark: 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.

**Attempts any six questions.**

[10x6=60]

1. Explain the history development of GIS. What are the application of GIS?
  2. Explain the mapping projection with example.
  3. Explain the spatial modeling with example.
  4. Explain the GPS and remote sensing with example.
  5. Why is spatial analysis important during the GIS implementation? Explain.
  6. What do you mean by metadata? Explain the critical factors of spatial data infrastructure (SDI).
  7. Explain the web based GIS system with example.
  8. Write short note on **(any two)**
- [5+5]
- (a) Map layers.
  - (b) Digital terrain model
  - (c) ITRS
  - (d) Buffering