

**Tribhuwan University**  
**Institute of Science and Technology**  
**2076**

Bachelor Level / eighth-semester / Science

**Computer Science and Information Technology(CSC468)**

(Geographical Information System)

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Full marks: 60

Pass marks: 24

Time: 3 hours

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**Attempt any six questions. [10x6=60]**

- 1. Briefly explain the concept of GIS. What are the various components of GIS. How GIS can help for transport planning and traffic management.**
- 2. Why do we need map in GIS? Explain the elements of MAP in brief.**
- 3. What do you understand by earth features? What are the different data models of representating the earth features.**
- 4. What do you mean by spatial data modelling? Explain spatial data types. What is geocoding? Explain spatial analysis with example.**
- 5. What is remote sensing? Explain the components of remote sensing with diagram.**
- 6. what is Scale Factor? What are different types of distortion in projections.**
- 7. Explain web based GIS system with example.**
- 8. Write short notes on any two**
  - (a) Spatial Data Model vs GIS Topology**
  - (b) Buffer and Overlaying**
  - (c) Datum vs Projection**