

Tribhuvan University
Institute of science and Technology
2071
☆

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. Define GIS. Describe the role of GIS in a mountainous country like Nepal. Support your answer with a reference of an application. [2+8]
2. What are various coordinate system used in GIS application? Describe them in brief. [2+8]
3. What are raster and vector data? Differentiate between their properties with advantages and disadvantages. [2+8]
4. What are various sources of GIS data? Describe methods of data capture. [2+8]
5. What do you mean by spatial analysis? How do you perform the raster overlay operation using relational operators? Explain with example. [2+8]
6. What is GPS? How does it work? What are various types of errors related to GPS data? [2+4+4]
7. Explain how does a clearing house works? What problems do you face during the spatial data sharing? [5+5]
8. Write short note on **(any two)** [5+5]
 - (a) DTM
 - (b) Remote Sensing Data
 - (c) Open GIS
 - (d) Layer