

Tribhuvan University
Institute of science and Technology
2073
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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 as an Information System. How a country like Nepal can benefit from GIS? Describe its application in Agriculture. [2+4+4]
2. What is distortion? Describe various types of Map Projection along with free hand drawing. [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 is a spatial overlay operator? Explain neighborhood functions that are being implemented in GIS software for analysis. [4+6]
6. Define Geo Database. Explain characteristics of a good database design. [2+10]
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) Functional Component of GIS
 - (b) UTM
 - (c) Map Elements
 - (d) Open GIS