𝔗𝔯𝔦𝔟𝔥𝔲𝔳𝔞𝔫 𝔘𝔫𝔦𝔳𝔢𝔯𝔰𝔦𝔱𝔶
Institute of science and Technology
2071
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Bachelor Level / Fourth Year / Eight semester / Science   Full Mark: 60
Computer Science and Information Technology-(CSc.459)   Pass Mark: 24
(Geographical Information System)   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 an 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 t 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