Exam Roll No...........

Tribhuvan University
Institute of Science and Technology
2082
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Bachelor Level / Fourth Year / Eighth Semester/ Science   Full Marks: 60
Computer Science and Information Technology (CSC468)   Pass Marks: 24
(Geographical Information System)   Time: 3 hours.
(NEW COURSE)

Candidates are required to give their answers in their own words as for as practicable.
The figures in the margin indicate full marks.

Section A

Long answer questions
Attempt any TWO questions   **(2 × 10 = 20)**

1. Explain different operations that can be used to perform raster analysis.   [10]

2. Describe RS and GNSS. How RS and GNSS data can be integrated in GIS? What are its practical implications?   [4+3+3]

3. What is open concept in GIS? Explain web based GIS system. What are its uses?   [3+4+3]

Section B

Short answer Questions
Attempt any EIGHT questions   **(8 × 5 = 40)**

4. How does open source GIS data and open source software play a significant role in spatial data analysis? Explain.   [5]

5. Explain the major components of SDI.   [5]

6. Explain spatial interpolation techniques.   [5]

7. How geo-referencing is carried out? How is it different from digitization?   [3 +2]

8. Explain the concept of geographic phenomena and data modeling.   [5]

9. What is map projection? Explain how it works in GIS.   [2+3]

10. Explain different functions of GIS.   [5]

11. How python script tools can be used in GIS? Explain with an example.   [5]

12. Write short notes on   [2x2.5=5]
    a) Metadata
    b) Thematic map