

Mid-West University
Examinations Management Office

Semester End Examinations 2081

Bachelor level/ B.E. Hydropower/ 5th Semester

Time: 3 hours

Full Marks: 50

Pass Marks: 25

Subject: Geographical Information and Remote Sensing (HE455/HE305)

- *Attempt all the questions*
 - *Figures in the margin indicate full marks.*
 - *Assume suitable values, with a stipulation, if necessary.*
 - *Candidates are required to answer the questions in their own words as far as possible.*
1. Write the philosophy of GIS. Explain the use of GIS in the newly formed Municipality under new federal system in Nepal. How do you suggest using it for their planning work? [5]
 2. Enumerate the Vector and Raster data model concept with their advantages and disadvantages. [5]
 3. Describe the accuracy and precision on data capture and automation of GIS. Explain attribute data and its entry method. [2+3]
 4. Explain the phases and objectives of database design. How data dictionary management concept helps in the GIS system? [5]
 5. Define DGPS. Write the working principle of GPS with its applications. [1+4]
 6. What do you mean by meo satellite? Compare between Geo, Leo and Meo. [5]
 7. Why is the map function necessary in GPS? Explain the elements included in making a Map. [5]
 8. What do you mean by remote sensing? Explain the components of remote sensing with a diagram. [5]
 9. What is integrated spatial analysis? Why is spatial analysis important during GIS implementation? [1+4]
 10. Write a short note on *any two*; [2x2.5]
 - a) DEM surface model
 - b) River network analysis
 - c) Raster Data

The End