Total number of printed pages–4

3 (Sem–4/CBCS) GGY HC 3

Ananda Ram Dhekial Phookan College Library
Acc. No.
Date
Nagaon : Assam

2026

GEOGRAPHY

(Honours Core)

Paper : GGY–HC–4036

(Remote Sensing, GIS and GPS)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer ***any seven*** from the following questions : 1×7=7

   (a) What is geocoding ?

   (b) What is Cartosat ?

   (c) Give an example of sensor.

   (d) Define topology.

   (e) What is the full form of PSLV ?

(f) What type of satellite is used in GPS ?

(g) What is the visible range of electromagnetic spectrum ?

(h) What is EMR ?

(i) Write full form of DEM.

(j) What are sensors ?

2. Answer ***any four*** questions from the following very briefly : 2×4=8

(a) Distinguish between census data and survey data.

(b) Mention the basic spatial entities in GIS.

(c) What do you mean by spatial data and attribute data ? Give examples.

(d) What are the components of GIS ?

(e) What do you mean by path and row ?

(f) What is nadir ?

(g) What is atmospheric window ?

(h) What is refraction ?

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3. Answer ***any three*** from the following questions : 5×3=15

(a) Explain briefly how features are measured in GIS.

(b) Explain the importance of map projection in GIS operations.

(c) Discuss the elements of image interpretation in remote sensing.

(d) What are the different types of camera used in aerial photography ?

(e) Distinguish between aerial photograph and satellite imagery.

(f) Discuss the utilities of GPS in map making process.

(g) Discuss about the important sources of data in GIS.

(h) Explain in brief the advantages and limitations of remote sensing.

4. Answer ***any three*** from the following questions : 10×3=30

(a) Discuss in detail analog (visual) image processing and digital image processing for analysing remote sensing data.

(b) Explain how databases are linked with GIS.

(c) Discuss the application of remote sensing in urban land management.

(d) What are the different types of GPS ? Discuss its principles. 3+7=10

(e) Explain the difference between database and database management system in GIS.

(f) Describe the application of GPS in surveying and mapping.

(g) Describe the geometry of vertical aerial photography with suitable diagrams.

(h) Discuss the application of remote sensing in flood damage estimation.

(i) Discuss in detail the development of remote sensing with special reference to India.

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