3 (Sem–4/CBCS) GGY HC 3

2023

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 the following questions :   1×7=7

   (a) What is meant by resolution of a sensor ?

   (b) Give the full form of ISRO.

   (c) What is pixel ?

   (d) Name the radiation with longest wavelength in electromagnetic spectrum.

(e) Name *one* Indian remote sensing satellite.

(f) How many satellites are used in GPS ?

(g) Give an example of remote sensing platform.

2. Answer the following questions : 2×4=8

(a) What is georeferencing ?

(b) What is photogrammetry ?

(c) Give a reasonable definition of GIS.

(d) What is Landsat ? Give *one* example.

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

(a) Explain the principle of aerial remote sensing.

(b) What is buffer ? Why is buffer important for data interpretation in GIS ?

(c) Analyse the technique of data layer extraction.

(d) Distinguish between supervised and unsupervised data classification techniques.

(e) Explain the structure and characteristics of vector data.

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

(a) Discuss the development trend of satellite remote sensing in India.

(b) Explain with examples the procedure and technique used in overlay analysis.

(c) Present the history of development of GIS with examples.

(d) Describe the characteristics of spatial and non-spatial data types and state how these are dealt with in Database Management System.   6+4=10

(e) State how land resources are analysed using remote sensing.

(f) Explain the procedure and technique of GPS survey with examples.

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