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3 (Sem-4/CBCS) GGY HC 3

2021

GEOGRAPHY

(Honours)

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.***

GROUP-A

(Marks 30)

1. Answer the following questions : $1 \times 5 = 5$

(a) Write the name of an Indian Remote Sensing satellite.

Contd.

- (b) Which one is the near-infrared band in Landsat 8 ?
- (c) Which are the primary colours in the visible spectrum ?
- (d) Mention *any two* methods of data input in GIS.
- (e) Among the three different buffer techniques, two are point buffer and line buffer. Name the third one.

2. Write short answers to the following questions : 2×5=10

- (a) Write *two* names of open source software used in GIS and RS.
- (b) What is geo-registration ?
- (c) What are the different energy sources in Remote Sensing ?
- (d) Write *two* examples of active sensors.
- (e) Write the names of *two* early remote sensing tools used before the 1970s.

3. Write answers to **any three** of the following questions : $5 \times 3 = 15$

(a) What is non-spatial data ? How is it used in GIS ?

(b) Define database. What is the nature of the database used in GIS ?

(c) Discuss how the scattering of light in the atmosphere affects the quality of remote sensing data.

(d) Discuss the use of GPS in urban management.

(e) Write a note on Supervised Classification.

GROUP-B

(Marks 30)

4. Answer **any three** questions : $10 \times 3 = 30$

(a) Which are the spatial analysis tools used in GIS ? Describe their uses.

- (b) Discuss how the remote sensing data interacts with the earth surface.
 - (c) Discuss how data is incorporated into the GIS system.
 - (d) Discuss the application of remote sensing in land management.
 - (e) What are the advantages and disadvantages of raster and vector data ?
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