3 (Sem–6) GGY M 4

2022

GEOGRAPHY

(Major)

Paper : 6·4

(Principles and Applications of 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) Name *one* sensor used in Indian remote sensing satellite.

   (b) What is pixel ?

   (c) What is the full form of ISRO ?

   (d) What is the visible range of EMR ?

   (e) Name the GIS software produced by ESRI.

Contd.

(f) What is the most important source of spatial data in GIS ?

(g) What is GPS ?

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

(a) Mention *two* properties of vertical aerial photographs.

(b) Mention *two* characteristics of LANDSAT TM images.

(c) Mention the functional units of GIS.

(d) What is meant by atmospheric window in remote sensing ?

3. Answer ***any three*** of the following questions in brief : 5×3=15

(a) Briefly explain the working principles of remote sensing.

(b) Write a note on classification of aerial photographs.

(c) Briefly discuss the functioning of GPS.

(d) Write a note on development of satellite remote sensing in the world.

(e) What is DGPS ? Mention its utilities.

4. Discuss the advancement of satellite remote sensing with respect to data quality. 10

Or

With necessary diagrams, explain the principles of photogrammetry. 10

5. Discuss the applications of remote sensing in forest management. 10

Or

Highlight the applications of remote sensing in monitoring water resources. 10

6. Discuss the basic components of GIS and their functioning in handling spatial and non-spatial data. 10

Or

Highlight the applications of GIS in spatial planning for development. 10

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