2017

GEOGRAPHY

(Major)

Paper : 6·4

(Principles and Applications of Remote Sensing, GIS and GPS)

Full Marks : 60

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Answer the following questions : 1×7=7

(a) What is metadata?

(b) What is the full form of PSLV?

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

(d) What is the full form of SRTM?

(e) "Gamma ray, X-ray, etc., are the examples of shortwave radiation."
Write whether the above statement is true or false.

(f) What is Bhuvan?

(g) "In Arc GIS, the vector files are known as shape files."
Write whether the above statement is true or false.

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

(a) What is a reflectance curve?

(b) Mention a few available models of DEM.

(c) Mention the different components of GIS.

(d) What is NDVI?

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

(a) Mention the characteristics of spatial data with examples.

(b) Discuss the application of aerial photography in land-use/land-cover mapping.

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

(d) Discuss the utilities of a handheld GPS.

(e) Give an account of database management in GIS.

4. Discuss the development of Satellite Remote Sensing in India. 10

Or

With necessary diagrams, explain the principles of photogrammetry. 10

5. Discuss the application of GPS in surveying and mapping of geographical features. 10

Or

Write a comparison of raster and vector data formats. 10

6. Discuss the application of Remote Sensing in urban land management. 10

Or

Discuss the application of Remote Sensing in forest management. Give examples of Remote Sensing data that are suitable for forest studies. 6+4=10

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