2022

1st Semester Examination

REMOTE SENSING AND GIS

Paper : RSG 103

Full Marks : 40 Time : Two Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Paper : 103.1

(Photogrammetry and Geodesy)

Group - A

Answer any ***two*** of the following questions : 2×2=4

1. Define geodesy.
2. What is locally defined Datum?
3. Explain different stereo imaging concepts from satellites.
4. When and where was the first recorded aerial photograph taken?

Group - B

Answer any ***two*** of the following questions : 4×2=8

5. What is an ellipsoid? How ellipsoid is related to the shape of the earth?

P.T.O.

6. Calculate the flying height above terrain, if the focal length is 0.1524m and scale of the photograph is 1 : 5000.

7. Highlight the major conditions for stereovision of aerial photographs.

8. Briefly mention the major benefits of using UAVs in modern survey methods.

Group - C

Answer any ***one*** of the following questions : 8×1=8

9. What is ground control and how is it used in the production of maps from aerial photographs? 2+6

10. Explain the modern views on determination of figure of the Earth, use the example of Gravimetric Methods. 8

Paper : 103.2

(Surveying and Navigational Satellite System)

Group - A

Answer any ***two*** of the following questions : 2×2=4

1. What do you mean by 'Ground Truth'?

2. Write the full form of NavIC.

3. What is Total Station?

4. What is traversing in surveying?

Group - B

Answer any *two* of the following questions : 4×2=8

5. Compare between handheld GPS and DGPS.

6. Write a short note on IRNSS.

7. Briefly discuss about signal characteristic and operational concept of Global Navigational Satellite System.

8. Discuss different sources of errors in GPS signals.

Group - C

Answer any *one* of the following questions : 8×1=8

9. How does total station measure distance? Write major advantages of using total station over conventional surveying instruments. 5+3

10. Discus different segments of NAVSTAR GPS. Note down major applications of GNSS. 5+3
