Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CE) (2011 Onwards) (Sem.–4)

GEOMATICS ENGINEERING

Subject Code : BTCE-401

M.Code : 56083

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt ANY TWO questions.**

SECTION-A

Q1 Answer briefly :

a. Define remote sensing.

b. What is an Angle of Parallax?

c. Explain atmospheric windows.

d. Draw schematic diagram of geodimeter.

e. What is WGS-84?

f. Define radiometric resolution.

g. How is vertical angle measurement made with the help of Total Station?

h. Write **any two** characteristics of Earth Resources Satellite.

i. Differentiate between Crab and Drift.

j. Name various sensors on board of Indian Remote sensing satellites (IRS).

SECTION- B

2. What do you understand by spatial data and attribute data? How are they integrated to make a GIS?

3. What do you understand by across track scanning? Explain with neat diagram.

4. Write a short note on common ERRORS encounter during use of GPS.

5. Explain the concept of stereoscopic measurement.

6. A vertical photograph is taken with a camera of focal length 350 mm from an elevation of 2500m above the ground. The terrain is nearly flat. What is the photo scale?

SECTION-C

7. The difference in parallax between a point living at sea level and another point on a higher ground is measured and found to be 4.20mm. The flying height is 2530m above sea level, the air base is 950m and the focal length of the camera is 210 mm. Determine the elevation of the point on the higher ground.

8. Why atomic clocks are used in GPS survey? Name and explain **any two** segments of GPS system.

9. Discuss in brief salient features of Meteorological satellites.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.