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B. Tech. EXAMINATION, Dec. 2018

(Second Semester)

(Weekend) (Re-appear Only)

(CE)

CEW106

GEOMETRICS ENGINEERING

Time : 3 *Hours*] [*Maximum Marks :* 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt any *Five* questions. All questions carry equal marks.

1. The scale of an aerial photograph is 1 cm = 100 m. The photograph size is 20 cm × 20 cm. Determine the number of photographs required to cover an area of 100 sq. km if the longitudinal lap is 60% and the side lap is 30%. **20**

2. Draw a line diagram to show typical wavelength regions of EMS that are useful for remote sensing purposes. **20**

3. Differentiate between : **20**

(a) Rayleigh and Mie Scattering

(b) Specular and Diffused Reflectance.

4. Draw SRC of vegetation, soil and water in visible and NIR regions. Explain each curve. **20**

5. Write short notes on the following :

(a) Whiskbroom Scanners

(b) Active Sensors

(c) Geostationary Satellites

(d) Indian Remote Sensing Program. **20**

6. Define Pre-process of digital data. What are the differences between radiometric and geometric enhancement ? **20**

7. Enumerate and explain various image interpretation elements. **20**

8. Define GIS. List out various components of a GIS and give a brief explanation of each. **20**