474

B.Tech. EXAMINATION, May 2019

(Fourth Semester)

(Old Scheme) (Re-appear Only)

CE

CE208

GEOMATIC 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. (a) Derive an expression for the height displacements in a vertical photograph. **10**

(b) Write short notes on the following :

(i) Stereoscopic vision

(ii) Crab and drift **10**

2. Explain Rayleigh criterion to determine the surface roughness of an earth surface feature.

20

3. State Stefan-Boltzman's Wein's displacement and Kirchhoff's laws. What is their utility in interpreting features in thermal infrared region on EMS ? **20**

4. What do you mean by remote sensing ? Differentiate between active and passive remote sensing. **20**

5. Write short note on remote sensing observation platforms. **20**

6. What do you mean by visual image interpretation ? Enumerate and explain various image interpretation elements. **20**

7. (a) Why do we pre process the digital data ? **10**

(b) What is the difference between radiometric and geometric enhancement ? **10**

8. (a) What does a hardware component of GIS contain ? **8**

(b) Differentiate between vector and raster data models. **12**