

R09

Code No: 09A70105

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, May/June - 2013

GIS and Remote Sensing

(Civil Engineering)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) Write the equation for finding Parallax of any point with figure and also derive the equations for finding object height and ground coordinate location from parallax measurement.
- b) The flying height for an overlapping pair of photos is 1600m above the ground and P_a is 75.60mm. Find the height of the tree if the parallax difference is 1.20mm. [15]
2. Explain the Radiation principles including energy of quantum, Stefan-Boltzmann law and Wein's displacement law with equations and figures. [15]
3. Discuss how energy interact with earth surface features with neat sketch. [15]
- 4.a) Briefly write about tool box based, data base and organization based GIS.
- b) Write a detailed note on the components of a geographical information system. [7+8]
- 5.a) Write the advantages and disadvantages of both Vector and Rastar data structures-
- b) Write about different data input methods. [8+7]
6. Write short notes on
 - a) Overlay Analysis
 - b) DTM Generation and TIN. [15]
7. Explain the role of the remote sensing and GIS in surface water mapping and inventory and also in watershed management. [15]
8. How the remote sensing is useful in Ground water targeting and identification of sites for artificial recharge structures. [15]

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