

Code No: 117GY

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2017

REMOTE SENSING AND GIS

(Common to CE, CEE)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

Part- A (25 Marks)

- 1.a) What do you mean by relief displacement. [2]
- b) Explain the importance of parallax. [3]
- c) Define remote sensing. [2]
- d) Draw electromagnetic spectrum. [3]
- e) Explain the use of spatial data. [2]
- f) Explain datum and its importance. [3]
- g) What do you mean by data structure? [2]
- h) Explain geobase data model. [3]
- i) What is metadata? Explain along with examples. [2]
- j) Describe the process of digitization. [3]

Part-B (50 Marks)

2. Elaborate the effect of flying height on ground coverage along with a neat sketch. [10]
OR
- 3.a) Explain photographic resolution.
b) Elaborate the fundamentals of air photo interpretation. [5+5]
4. List and explain any two satellites and write down characteristics of satellites. [10]
OR
- 5.a) Explain advantages of remote sensing.
b) Elaborate remote sensing process along with a flow chart. [5+5]
6. Explain the UTM projection along with its applicability. [10]
OR
- 7.a) What are the map projections parameters and its importance in GIS.
b) List and explain any three GIS operations. [5+5]
- 8.a) Write down advantages of raster models.
b) Write down disadvantages of vector models. [5+5]
OR
- 9.a) List and explain different shape files used in GIS.
b) List out various topology rules used in GIS data processing. [5+5]
- 10.a) Differentiate between manual and automatic digitization.
b) Explain different data input methods in GIS. [5+5]
OR
11. Explain the step by step procedure for the integration of raster and vector data in the combined model. [10]

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