

R13

Code No: 117GY

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, April/May - 2018

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 is stereoscope? [2]
- b) Give the classification of Aerial Photographs [3]
- c) Differentiate between Sun Synchronous and Geosynchronous orbit. [2]
- d) What do you mean by IRS? Give Examples. [3]
- e) What is map Projection? [2]
- f) Explain how you will link spatial and attribute data [3]
- g) What is Coverage? In which formats you can store? [2]
- h) What is Geodatabase? [3]
- i) What is Metadata? [2]
- j) What do you mean by scanning? In which formats output will be generated? [3]

PART-B

(50 Marks)

- 2.a) Draw a neat sketch of Geometry of vertical aerial photograph.
- b) What is vertical exaggeration? How you will determine vertical exaggeration? [4+6]

OR

- 3.a) What is relief displacement of aerial photograph? Explain with neat sketch.
- b) Explain how parallax measurements are done using fiducial line. [5+5]

- 4.a) What are the types of scattering? Explain.
- b) Explain different data collection methods of RS. [5+5]

OR

- 5.a) What are the types of resolution involved in Remote Sensing? Explain.
- b) What do you mean by Digital Image Processing? Explain basic processes involved. [5+5]

- 6.a) Explain the different operations performed in GIS?
- b) What is UTM Projection? Explain in detail. [5+5]

OR

- 7.a) Differentiate between Manual Digitization and Automated Digitization.
- b) What are the different data analysis methods in GIS? Brief them. [5+5]

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AG 8.a) Explain the process of TIN Generation. Give applications of TIN. [5+5] AG A
b) What are the different vector data models available? Give advantages of each.

OR

9.a) Brief the different methods of compacting vector data?. [5+5]
b) Explain POLYVRT and GBF/DIME model.

AG 10.a) What impact does grid cell size have on the locational accuracy? [3+7] AG A
b) Explain how you will store point, line and area in raster System.

OR

11.a) Explain run length encoding and raster chain method of data compression [7+3]
b) What is the significance of source map?

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