Code No: 117GY

R13

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]

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

OR

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

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

OR

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

--ooOoo--