

(DCE 424 F)

B. Tech. DEGREE EXAMINATION, MAY - 2015

(Examination at the end of Final Year)

CIVIL ENGINEERING

Paper - IV : Remote Sensing and Photo Interpretation

Time : 3 Hours

Maximum Marks : 75

Answer question No. 1 compulsory

(15 x 1 = 15)

Answer ONE question from each unit

(4 x 15 = 60)

- 1)**
- a) What is the principle of Remote sensing?
 - b) Give the classification of sensors.
 - c) What is MSS?
 - d) Explain the term 'atmospheric windows'.
 - e) What is photogrammetry?
 - f) Differentiate between spectral resolution and spatial resolution.
 - g) What is LIDAR?
 - h) What is geo-stationary satellite? Name the latest geo-stationary satellite.
 - i) What is Spatial Data?
 - j) Define spectral signature.
 - k) What is DEM? List out its uses.
 - l) How do you classify land use? List the units of land use.
 - m) Define thematic mapper (TM).
 - n) What is the importance of interpretation key?
 - o) Define GIS? When do you use GIS?

UNIT - I

- 2) a) Write a brief note on electromagnetic spectrum. [8]
b) Explain about black body radiation. [7]

OR

- 3) a) Explain various features of thematic mapper (TM) and compare with other sensors. [8]
b) Explain about Air borne platforms. [7]

UNIT – II

- 4) a) State the importance of Aerial photogrammetry. [5]
b) Discuss the needs and procedures of collecting role of ground truth in remote sensing. [10]

OR

- 5) a) What are the differences between visual and digital interpretation procedure. [8]
b) Write in detail about digital image processing (DIP). [7]

UNIT – III

- 6) a) How do you apply Remote sensing for digital analysis of satellite data for planning of transport routes. [8]
b) Discuss the role of Remote sensing in building up the National economy of our country? [7]

OR

- 7) a) What is land use planning? Explain the use of remote sensing images in urban planning? [8]
b) Write about spectral signature for vegetation, water bodies and soils. [7]

UNIT – IV

- 8) a) Explain how do we use remote sensing in waste land management. [7]
b) What should be the temporal resolution of the remote sensing data in the study of forest cover changes? Justify your answer. [8]

OR

- 9) a) Explain in detail the different stages of GIS data Modelling. [8]
b) Differentiate between layer based GIS mapping and feature based GIS mapping. [7]