

**EIGHTH SEMESTER B TECH DEGREE EXAMINATION
JUNE 2008**

CE 04 804 (F) REMOTE SENSING AND GIS

Time: 3 hours

Maximum: 100 marks

(8 x 5 = 40)

1. a) Explain spectral signature.
 b) Differentiate between passive and active remote sensing.
 c) Why multi-spectral scanners? Explain the working principle of along track and across track multi-spectral scanners.
 d) How sun-synchronous satellites differ from geosynchronous satellites.
 e) Why GIS? What are the components of GIS?
 f) Differentiate between vector and raster data representation.
 g) Why image enhancement? Explain different methods of image enhancement.
 h) Critically compare visual and digital interpretation techniques.

2. a) i) Explain various radiation laws applicable to remote sensing. (8)
 ii) What do you understand by atmospheric window? (7)
 OR
 b) i) Explain the role of EMR in Remote Sensing. (8)
 ii) Explain the terms synoptivity and repetivity. (7)

3. a) i) What are the different types of sensors used in IRS satellites? (8)
 ii) Explain about different resolutions that are important in Remote Sensing. (7)
 OR
 b) i) Explain microwave remote sensing. (8)
 ii) Distinguish between earth resources satellites and communication satellites. (7)

4. a) i) What are maps? Distinguish between spatial data and attribute data. (8)
 ii) Describe common classification methods of raster data. (7)
 OR
 b) i) Discuss the various types of raster data structures. (8)
 ii) Compare different input methods into GIS. (7)

5. a) Discuss the application of Remote Sensing in resource management. (15)
 OR
 b) Explain the use of integrated GIS in water resources. (15)
