Set 2

MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

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MANIPAL INSTITUTE OF TECHNOLOGY

FOURTH SEMESTER B.TECH (OPEN ELECTIVE)

END SEMESTER EXAMINATION, MAY 2023

INTRODUCTION TO REMOTE SENSING AND GIS (CIE 4305)

(– 05 - 2023)

TIME: 3 HRS. **MAX. MARKS: 50**

Note: 1. Answer all questions.
2. Any missing data may be suitably assumed.

Q. NO	QUESTION	MARKS	CO	BL
1A	Describe the advantages of raster and vector	4	CO3	2
1B	Explain topological model.	4	CO3	2
1C	Explain the linear contrast stretch with an example	2	CO4	2
2A	List and explain applications of optical remote sensing in agriculture	4	CO5	2
2B	Describe tasseled model	4	CO3	2
2C	Give any two advantages of unsupervised classification	2	CO4	2
3A	The city of Mangalore wants to use the satellite data in order to assess and monitor the vegetation. What are the factors to be taken into consideration while purchasing the data? Explain	4	CO5	3
3B	What is Digital Elevation Model? Explain.	4	CO3	2
3C	Give an example for Periodic Line stripping	2	CO4	2
4A	Write a note on image enhancement	4	CO3	2
4B	If one wants go for counting the number of trees and identify the species, on the existing road network, what spatial resolution and spectral resolution is required?	4	CO5	3
4C	Give any two reasons for applying geometric correction	2	CO4	2
5A	Prepare two sets of 5X5 matrices. Imagine that the two matrices belong to the two bands representing same area at the same time. Fill the matrices with values ranging from 1 to 10, not repeating a number more than 4 times. Write the same files of two band information in to Band Interleaved by Line format.	4	CO4	3
5B	In what way the algal bloom is helpful for humans? Explain	4	CO5	3
5C	Write examples for Remote sensing being used in collecting information on inaccessible areas	2	CO5	3