Reg. No.										

MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL

(A constituent institution of MAHE, Manipal)

II SEMESTER M.TECH. (ENVIRONMENTAL ENGINEERING)
END SEMESTER EXAMINATIONS, MAY/ JUNE 2018

SUBJECT: REMOTE SENSING AND GIS IN ENVIRONMENTAL ENGINEERING [CIE- 5248]
REVISED CREDIT SYSTEM
(23/ 04/ 2018)

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- Answer ALL the questions.
- Missing data may be suitably assumed
- Draw the explanatory sketches wherever required.

1A.	Define atmospheric window. Explain atmospheric window as applicable to Remote Sensing activity with a sketch, with its significance.	**05**
1B.	Give an account of the 'Classification of Scanners'. What is the significance of MSS? Discuss the types of MSS in general use.	**05**
2A.	Explain spectral reflectance curves and spectral signature highlighting the significances	**05**
2B.	What is image interpretation? What are the different types? Give a comparative study of the different interpretation techniques.	**05**
3A.	Discuss briefly the process and significance of Principal Component Analysis as applicable to image interpretation.	**05**
3B.	What is classification? Why classification is done? Discuss the different methods of classifying satellite imageries	**05**
4A.	Explain the advantages of GIS data over other data systems.	**05**
4B.	Explain a) Overlay analysis b) Network analysis.	**05**
5A.	Explain the application of remote sensing and GIS techniques in water quality analysis.	**05**
5B.	Write short note on the followings. a) Edge Enhancement b) Advantages and disadvantages of Raster Geo-processing	**05**