

B.Sc. 3rd Semester (Honours) Examination, 2021

ENVIRONMENTAL SCIENCE

Course ID: 31815

Course Code: SH/ENV/305/SEC-1

Course Title: Remote Sensing, Geographical Information System and Modeling

Time: 1 hr 15 min.

Full Marks: 25

*The figures in the right hand side margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.*

1. Answer *any five* questions from the following: (1 x 5= 5)

- a) Define active remote sensing.
- b) What is meant by Electromagnetic Spectrum?
- c) What are ISRO and NASA stand for?
- d) What is FCC?
- e) What are TM and LISS stand for?
- f) Define sampling error.
- g) What is skewness?
- h) What is geo-referencing?

2. Answer *any two* questions from the following: (5 x 2= 10)

- a) What is spectral signature? Explain its importance in identifying terrestrial features from satellite images.
- b) Define sampling. Mention different types of sampling generally used to study environmental parameters.
- c) Distinguish between 'correlation' and 'regression'.
- d) Explain various visual aerial photo interpretation keys.

3. Answer *any one* question from the following: (10 x 1=10)

- a) Explain the various processes of remote sensing with special reference to interaction of EMR with earth's surface.
- b) Explain in brief the various applications of Remote Sensing and Geographical Information System in different environmental projects.