TDC Even Semester Exam., 2019

ECOLOGY AND ENVIRONMENTAL SCIENCE

(Honours)

(4th Semester)

Course No. : EESH–401

(Remote Sensing, Geographic Information System and Modelling)

Full Marks : 35

Pass Marks : 12

Time : 2 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. What do you understand by 'Remote Sensing'? Elaborate on the principles involved in remote sensing. 2+5=7

2. Discuss in brief the effect of interaction of EMR with earth's surface. 7

UNIT—II

3. Give a concise definition of Geographical Information System (GIS). Describe the major components associated with GIS. 2+5=7

4. State the differences between the following : 3½×2=7

(a) Spatial and non-spatial data

(b) Raster and vector data

UNIT—III

5. Write short notes on the following : 3½×2=7

(a) Database management system

(b) Land cover mapping

6. How can GPS help in land survey? Write in brief the mechanism of data import, processing and mapping. 1+2+2+2=7

UNIT—IV

7. Discuss in brief the applications of remote sensing in land use planning. Support your answer with appropriate case study. 7

8. Write short notes on the following : 3½×2=7

(a) Application of GIS in water resource management

(b) Role of remote sensing in forest resource management

UNIT—V

9. Write short notes on the following : 3½×2=7

(a) Normal and binomial distributions

(b) Correlation regression

10. What are the basic elements of statistical analyses? Describe a few statistical technique with examples. 2+5=7

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