**2023/TDC(CBCS)/EVEN/SEM/
EESSEC–401T/203**

TDC (CBCS) Even Semester Exam., 2023

ECOLOGY AND ENVIRONMENTAL SCIENCE

(4th Semester)

Course No. : EESSEC–401T

(Remote Sensing, GIS and Modelling)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any *fifteen* of the following as directed :

1×15=15

1. Define remote sensing.

2. What are satellites?

3. Give one example of a seasor.

4. What is EME spectrum?

(Turn Over)

(2)

(3)

5. Address of a person is a raster/vector data.

(Choose the correct option)

6. Name one hardware used in GIS.

7. What is a non-spatial data?

8. What is geographic coordinate system?

9. What is the full form of GNSS?

10. Name one Indian satellite.

11. What is digital mapping?

12. Define photogrammetry.

13. What is GPS?

14. Give one application of remote sensing in atmospheric studies.

15. Write the full form of LULC.

16. Define land cover.

17. What is a hypothesis?

18. _____ distributions are mesokurtic.

(Fill in the blank)

19. Define simple random sampling.

20. Provide the formula for simple linear regression.

SECTION—B

Answer any *five* of the following questions : 2×5=10

21. What is electromagnetic spectrum?

22. What is spatial resolution?

23. What is vector data? Give examples.

24. Mention four functions of GIS.

25. What is data processing?

26. What is database generation?

27. Write four applications of LULC maps.

28. Give a brief account of application of remote sensing in forest resource management.

29. What is ordination? Give one application of ordination in ecology.

30. State the difference between correlation and regression.

SECTION—C

Answer any *five* of the following questions :

5×5=25

31. Give a brief account of types and characteristics of aerial photography.

32. Describe briefly the principles and process of remote sensing.

33. Describe briefly the geographical information system.

34. Write the difference between spatial and non-spatial data. Give examples of each type of data. 4+1=5

35. Give a detailed account of database management system.

36. Give a brief account of land use/land cover mapping.

37. Give a detailed account of application of remote sensing in land use planning.

38. Describe in detail about the application of remote sensing in water resource management.

39. State the difference between parametric and non-parametric tests with examples.

40. What is distribution in statistics? Write about the types of distribution with examples.

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