Reg. No ..... Name **26P246**

M. Sc. DEGREE END SEMESTER EXAMINATION - APRIL 2026

SEMESTER 2 : ENVIRONMENTAL SCIENCE

COURSE : **24P2EVST07 : REMOTE SENSING AND GIS**

(For Regular 2025 Admission and Improvement/Supplementary 2024 Admission)

Time : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	What is overlay analysis?	(U, CO 6)
2.	What is topographical map?	(U)
3.	What are the data sources of GIS?	(R, CO 3)
4.	What is supervised and unsupervised classification?	(U, CO 2, CO 3, CO 4, CO 5)
5.	What are the components of GIS?	(R, CO 3)
6.	Differentiate imaging sensor and non-imaging sensor	(U, CO 1, CO 2, CO 3, CO 6)
7.	What is Geodetic surveying?	(U, CO 1, CO 3)
8.	What is GPS	(R, CO 1)
9.	What are the digital image processing techniques?	(U, CO 2, CO 3, CO 4, CO 5)
10.	What is Cylindrical projection?	(U, CO 6)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Write the advantages and disadvantages of compass survey.	(U, CO 1, CO 3)
12.	What is image classification in remote sensing?	(U, CO 2, CO 3, CO 4, CO 5)
13.	What are the characteristics of vector data?	(U, CO 3)
14.	Explain the techniques used for digital image processing.	(U)
15.	Write a note on topology creation.	(U, CO 6)
16.	Write note on microwave sensors	(U, CO 1, CO 2, CO 3, CO 6)
17.	Explain the different kinds of survey carried out based on the nature of the field and object of survey.	(U, CO 1, CO 3)
18.	What are the applications of GPS in terrestrial mapping.	(R, CO 1)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	What is visual interpretation? Explain the steps and elements of interpretation.	(U, CO 2, CO 3, CO 4, CO 5)
20.	What is image restoration and image rectification? Give a detailed explanation.	(U, CO 2, CO 3, CO 4, CO 5)

21. Describe the applications of GIS and remote sensing in the following area? (U, CO 6)
a) Agriculture b) Climate c) Forestry

22. Explain spatial Data Representation in GIS. (U, CO 6)

(5 x 2 = 10)

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Define basic level fundamental physical principle of remote sensing and GIS	R	6, 7, 8, 11, 16, 17, 18	11
CO 2	Explain Remote Sensing Systems and programmes (sensors, platforms, etc.) and demonstrate its potential to spatial analysis.	U	4, 6, 9, 12, 16, 19, 20	17
CO 3	Make use of basic computational properties of remote sensing data acquisition, storage, and processing.	U	3, 4, 5, 6, 7, 9, 11, 12, 13, 16, 17, 19, 20	26
CO 4	Make use of basic computational properties of remote sensing data acquisition, storage, and processing.	An	4, 9, 12, 19, 20	14
CO 5	Compare different types of remote sensing data products and analysis techniques and select the most appropriate to solve a real-world problem.	E	4, 9, 12, 19, 20	14
CO 6	Develop critical thinking skills in solving geospatial problems	U	1, 6, 10, 15, 16, 21, 22	17

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;