

Reg. No

Name

24P2040

M. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2024

SEMESTER 2 - ENVIRONMENTAL SCIENCE

COURSE : 21P2EVST07 - REMOTE SENSING AND GIS

For Regular 2023 Admission and Improvement/Supplementary 2022/2021 Admissions)

Duration : Three Hours

Max. Weights: 30

PART A

Answer any 8 questions

Weight: 1

1. Write short note on image interpretation? (U, CO 5)
 2. Write short note on spectral characteristics of soil (R, CO 1)
 3. What are the objectives of digital image processing? (U, CO 5)
 4. Write down the steps of digital image classification? (U, CO 5)
 5. Give a short note on Along-track scanner. (A, CO 6)
 6. What are the uses of Abney level? (U, CO 1, CO 3)
 7. Define map. (U, CO 3)
 8. What is Geodetic surveying? (U, CO 1, CO 3)
 9. What is meant by coordinate system? (R, CO 3)
 10. Write a short note on scope of remote sensing. (R, CO 1)
- (1 x 8 = 8)**

PART B

Answer any 6 questions

Weights: 2

11. What are the advantages and disadvantages of vector data? (U)
 12. Explain Multispectral Scanning. (A, CO 6)
 13. Explain satellite as the most stable platform used in remote sensing (U, CO 2, CO 3)
 14. Explain the nature and classification of Airborne Platforms. (U, CO 2, CO 3)
 15. Briefly describe the characters of image and image interpretation. (U, CO 5)
 16. Explain the application of GIS in Geology. (U, CO 6)
 17. Explain image statistical analysis. (A, CO 6)
 18. What are the engineering applications of remote sensing and GIS? (U, CO 6)
- (2 x 6 = 12)**

PART C

Answer any 2 questions

Weights: 5

19. Explain the Remote sensing satellites and its sensors with examples. (R)
20. Explain the vector and raster data model representation of surface features and spatial relationships. (U, CO 6)
21. Explain supervised and unsupervised classification. (U, CO 5)
22. Explain the applications of remote sensing in environmental monitoring and disaster management. (A, 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	2, 6, 8, 10	4
CO 2	Explain Remote Sensing Systems and programmes (sensors, platforms, etc.) and demonstrate its potential to spatial analysis.	U	13, 14	4
CO 3	Make use of basic computational properties of remote sensing data acquisition, storage, and processing	R	6, 7, 8, 9, 13, 14	8
CO 5	Compare different types of remote sensing data products and analysis techniques and select the more appropriate to solve a real-world problem	U	1, 3, 4, 15, 21	10
CO 6	Develop critical thinking skills in solving geospatial problems	U	5, 12, 16, 17, 18, 20, 22	19

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