MAY 2024 **P/ID 4441/PGE3J**

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions in 50 words each.

1. What are the three principle in surveying?

2. What are principal points in an aerial photograph?

3. GNSS – Define.

4. What does EMR mean?

5. What are Atmospheric Windows?

6. List any four Non-imaging sensors.

7. Define the term “LISS”

8. Distinguish between “Active” and “Passive” sensors.

9. What are “Image Interpretation Keys?

10. What do you mean by NDBI?

11. Bring out the need of a Spectral Profile.

12. Define the term “Urban Heat Island”.

PART B — ($5 \times 6 = 30$ marks)

Answer any FIVE questions in 250 words each.

13. What is an Aerial Photograph? Explain the various types of Aerial Photographs.

14. Examine the effects of energy interaction with atmosphere.

15. Evaluate various types of Satellite Orbits and its applications.

16. What are the three basic file formats of remote sensing data? Explain any of them.

17. How do you differentiate a high-pass filter and a low-pass filter?

18. What does image interpretation mean? Explain various elements of image interpretation.

19. Explain various steps to perform the supervised classification technique.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions in 500 words each.

20. Critically examine the merits and demerits of traditional and modern survey systems.

21. What does Electromagnetic Spectrum (ES) mean? Examine the various spectral regions of ES with suitable illustrations.

22. What does image pre-processing mean? Explain various pre-processing methods to correct the raw satellite data.

23. Examine why microwave remote sensing is better suited for monitoring tropical rain forests than the optical remote sensing?

24. Examine the role of remote sensing in disaster management activities with a case study.

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