

**SEMESTER EXAMINATION-2021**  
**CLASS – M.SC. SUBJECT – ENVIRONMENTAL SCIENCE**  
**MEN-C302: REMOTE SENSING AND GIS IN ENVIRONMENTAL MANAGEMENT**

**Time: 3 hour**

**Max. Marks: 70**

**Min. Pass: 40%**

**Note:** Question Paper is divided into two sections: **A and B**. Attempt both the sections as per given instructions.

**SECTION-A (SHORT ANSWER TYPE QUESTIONS)**

**Instructions:** Answer any five questions in about 150 words each. Each question carries six marks. (5 X 6 = 30 Marks)

- Question-1: What is Digital image processing (DIP)?
- Question-2: What is Satellite?
- Question-3: What is a Geographical Information system?
- Question-4: Define Remote Sensing
- Question-5: Explain briefly Photo recognition elements
- Question-6: Define RS Data.
- Question-7: Digital imaging. Explain.
- Question-8: What is the use of GIS in navigation mapping?
- Question-9: Scope and importance of GIS. Explain briefly?
- Question-10: What are the methods of Image interpretation?

**SECTION-B (LONG ANSWER TYPE QUESTIONS)**

**Instructions:** Answer any FOUR questions in detail. Each question carries 10 marks. (4 X 10 = 40 Marks)

- Question-11: Explain principles involved in a thermal IR image and microwave image interpretation in detail.
- Question-12: Define Multi-spectral classification.
- Question-13: Explain in detail with an example: Digital image processing.
- Question-14: Explain in detail the Spectral reflectance of water and soil.
- Question-15: What is the Aerial photo classification based on the altitude of the camera lens?
- Question-16: Explain Aerial photography in the conservation of water resources?
- Question-17: Describe in detail energy source and radiation principles.
- Question-18: Explain the role of Remote sensing and GIS in environmental conservation.

**Paper Code: MEN-C302**