

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2024
(Third Semester)

Branch - ENVIRONMENTAL SCIENCE

REMOTE SENSING AND GIS IN ENVIRONMENTAL MANAGEMENT

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Maps used to study surface elevations in a geographic area.
(i) Topographic maps (ii) Heat maps
(iii) General maps (iv) Population maps
2. Spectral signature is a function of
(i) Pitch (ii) Amplitude
(iii) Wavelength (iv) None of these
3. The detectors in whisk broom sensors are _____.
(i) Double detectors (ii) Multi-beam detectors
(iii) Scatter detector (iv) Single detectors
4. DEM in GIS creates _____.
(i) Lines (ii) Polygon
(iii) Raster layers (iv) Vector layer
5. The method of analyzing oceanic surfaces using satellites are called _____.
(i) Bathymetry (ii) Altimetry
(iii) Algorithm (iv) None of these

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

6. a) Write a short note on scope of geospatial technology.
OR
b) Give short description on natural and man-made features.
7. a) Describe about history and development of remote sensing.
OR
b) Give a short account on advantages of remote sensing.
8. a) Elaborate on types of remote sensor platforms.
OR
b) What are sensors? Define and differentiate imaging and non –imaging sensors.
9. a) Describe about variables in GIS.
OR
b) What are coordinate systems and projections in GIS?
10. a) Elaborate on habitat analysis using remote sensing.
OR
b) Comment on applications of remote sensing in urbanization.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11. a) Write an essay on “Changes occurred in the world after the arrival of geospatial technology”.
- OR
- b) Write a detailed description about earth topographic studies and its applications.
12. a) Differentiate between polar and geostationary satellites.
- OR
- b) Elaborate on applications of electromagnetic radiations and principles involved in remote sensing.
13. a) Describe in detail about RADAR and Lidar system applications.
- OR
- b) Define and describe about earth resource and meteorological satellites with examples.
14. a) Explain in detail about open source GIS consortium and its importance.
- OR
- b) Give a detailed account on image processing and GIS packages.
15. a) Write an essay on “ how does remote sensing and GIS contribute to the economic progress?”.
- OR
- b) Write an essay on “GIS in disaster prevention and management”.

Z-Z-Z

END