

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2023
(Fourth Semester)

Branch – ENVIRONMENTAL SCIENCE

**DISCIPLINE SPECIFIC ELECTIVE – II : NATURAL RESOURCES AND
CONSERVATION**

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1 Which of the following range of UV radiation is absorbed by Ozone?
(i) 10-50 nm (ii) 50-100 nm
(iii) 220-330 nm (iv) 100-200 nm
- 2 Identify the property of water allows it to stick to surfaces with an opposite charge?
(i) Surface tension (ii) Heat capacity
(iii) Cohesion (iv) Adhesion
- 3 Find the soil horizon that has most organic matter.
(i) Horizon A (ii) Horizon C
(iii) Horizon B (iv) Horizon O
- 4 Which mineral is the primary constituent of limestone?
(i) Quartz (ii) Feldspar
(iii) Calcite (iv) Mica
- 5 What is the purpose of Red data book?
(i) To regulate the trade of endangered species
(ii) To assess the economic value of biodiversity
(iii) To identify and describe endangered and threatened species
(iv) To promote the conservation of natural habitats

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a State the importance of conservation of energy resources.
OR
b Determine the effectiveness of afforestation as a sink for atmospheric carbon dioxide.
- 7 a Comment on "Rainwater Harvesting is lifeline for human well-being".
OR
b Sketch the status of distribution of water and its utilization in India.
- 8 a Justify the importance of estuaries for the protection of migratory species and their habitats.
OR
b Illustrate the role of macro & micro nutrients of soil and its contribution to plant growth.

Cont...

- 9 a Describe the importance of minerals in human life.
OR
b Illustrate the environmental implications by mineral extraction.
- 10 a Analyse the impact of population growth on endangered species and extinction.
OR
b Discuss seed bank and Germ plasma with suitable examples.

SECTION -C (30 Marks)

Answer ALL questions

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

- 11 a Categorize the natural resources based on different criteria.
OR
b Justify why solar energy is more sustainable energy source than fossil fuels.
- 12 a Elucidate the unique properties of water with suitable examples.
OR
b Discuss the different approaches to water resource management of Columbia river – A case study.
- 13 a Discuss the innovative techniques used for the conservation and management of soil.
OR
b Write the criteria to determine hotspots and name the hotspots in India with its importance.
- 14 a Explain the mineral formation and mineral extracting strategies.
OR
b Analyse the sources and distribution of mineral resources in oceans.
- 15 a Develop a plan to protect a specific endangered species and its habitat.
OR
b Differentiate between In-situ and Ex-situ bio diversity conservation methods with suitable examples.

Z-Z-Z

END