

**SL No of QP 1220**

**Unique Paper Code: 32181602**

**Name of the Paper:** Natural Resources Management & Sustainability

**Name of the Programme:** B.Sc. (H) Environmental Sciences – Core (LOCF)

**Semester:** VI

**Duration:** 3 Hours

**Maximum Marks:** 75

**Instructions for Candidates**

Answer any **five** questions. All Questions carry **equal** marks.

1. Differentiate between renewable and non-renewable resources. Discuss the role of human activities in resource degradation. (15)
2. (a) Explain freshwater shortages and strategies for water conservation. (7½)  
(b) Discuss the world food problem and techniques to increase world food production. (7½)
3. Explain the reserve-to-production ratio and global consumption patterns of mineral resources. Also, describe ocean mining for mineral resources. (15)
4. (a) Discuss the formation and classification of coal. (7½)  
(b) Explain the process and advantages of coal gasification. (7½)
5. Write explanatory notes (Attempt any **two**): (7½×2=15)  
(i) JNN Solar Mission  
(ii) Tidal and wave energy potential  
(iii) Storage of radioactive waste  
(iv) Life cycle cost in energy evaluation
6. What are integrated resource management strategies? Explain with examples how integration benefits sustainability. (15)
7. Describe the Indian Renewable Energy Programme. How does it align with the Sustainable Development Goals? (15)
8. Discuss the concept of cogeneration. How does it contribute to improving energy efficiency? (15)

