

Total Pages—5 PG/IIIS/GEOG/301.1 & 301.2/23

MA/M.Sc. 3rd Semester Examination, 2023

GEOGRAPHY

PAPER — GEOG-301.1 & 301.2

Full Marks : 50

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

PAPER — GEOG-301.1

(Environmental Engineering)

[Marks : 20]

GROUP—A

Answer any two questions : 2 × 2

1. What does a comminutor do ?

(Turn Over)

2. Define hazardous waste.
3. What is a null cycle in atmospheric photo-chemical reaction ?
4. What is an aerodynamic diameter ?

GROUP – B

Answer any two questions : 4 × 2

5. Examine the role of East Calcutta Wetland in treatment of waste water discharged from Kolkata municipality.
6. Illustrate the principles of environmental restoration.
7. Describe the NO_x cycle in the atmosphere with suitable graphics.
8. Why OH' (radical) is called the detergent of the atmosphere ?

GROUP-C

Answer any one question : 8×1

9. Assess the roles of various stakeholders in successful solid waste management.
10. Discuss the remedial measures for mitigating ground water contamination with fluoride.

PAPER – GEOG-301.2

(*Energy, Water and Food nexus*)

[Marks : 20]

GROUP-A

Answer any two from the following questions : 2×2

1. What do you mean by nexus governance ?
2. What is integrated water resources management (IWRM)?

3. What are the key pillars of the green revolution ?
4. How efficient energy use will mitigate climate change ? Give two examples.

GROUP-B

Answer any **two** from the following questions :

4 × 2

5. What are the major policies to ensure food security in post-independent India ?
6. How does the dam impact on the water, energy and food nexus in a river basin ?
7. How does the relative impact of renewable and non-renewable energy sources govern the availability of water resources ?
8. Write in brief the issues of conflicts and co-operations in trans-boundary river basins.

GROUP—C

Answer any **one** from the following question :
8 × 1

9. How does understanding the nexus between water, energy and food contribute to achieving sustainable development goals ?

 10. How did the Green Revolution in India impact the interconnectedness between water, energy and food nexus systems ?
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