

2021
(JUNE)

ENVIRONMENTAL SCIENCE
HONOURS

ENV-309

NINTH PAPER

(Environmental problems, Priorities and Hypothesis Testing)

Theory

Full Marks: 50

*The figures in the margin indicates full marks for the questions
Answer all the questions.*

1. Define Community. Discuss the various stages that take place in the development of a community. 10

Or

What is Gaia hypothesis? Elaborate the concept of origin of life on earth.

2. Discuss El-nino and La-nina and their consequences on environment. Why are these being considered as global issues? 10

Or

Describe the mechanism which is involved in the depletion of stratospheric ozone. Mention it causes and consequences.

3. What is dam? Discuss various problems associated with the construction of mega-dam projects in India. 10

Or

Discuss the reasons behind the increased population growth in the less developed nations and environmental problems posed by population explosion.

4. Detail with various major international conventions and protocols for sustainable development in the environment. 10

Or

Enumerate the various roles of environmental movements in India to curb the environmental degradations and to understand its importance.

5. Random sample are drawn from two groups of Sunflowers and the number of florets on each flower were counted. Following results were obtained:

Group I	20	21	19	18	16	27	30	29
GroupII	18	19	20	21	24	26	30	32

Find the variance of two groups and test the hypothesis that two groups have the same variance (given table value of F at 5% level of significant with (7,7) $d.f=3.44$) 10

Or

What is t-distribution? Mention its uses. From the following data on the weights in mg of species of insect before and after feeding a type of food, test whether a significant mean difference exists.

Before	17	17	18	21	22	17	23	23
After	18	17	20	24	23	15	25	22

(Given table value of t at 5% level of significant with $7d.f=2.365$)
