2709N565

Candidate's Seat No :_____

M.Sc Sem.-4 (Rep) Examination

510

Statistics (EC)

September-2024

Time : 2-30 Hours] **[Max. Marks : 70**

Q-1 (A): Explain the method of data collection in environmental statistics in detail. **[07]**

Q-1 (B): What is Environmental Statistics? Explain the significance of statistics in environmental conservation as one of the sustainable development goals. **[07]**

=OR=

Q-1 (A): Explain the characteristics of measurement scale of environmental data with examples. **[07]**

Q-1 (B): Explain environmental data structure. Also differentiate between data and information in terms of environmental statistics. **[07]**

Q-2 (A): Explain the Box Model for environmental data. **[07]**

Q-2 (B): Write a short note on pollution prevention from environmental perspective. **[07]**

=OR=

Q-2 (A): Describe any statistical model for prevention of pollution under ecological perspective. **[07]**

Q-2 (B): Describe the Gaussian Plume Model under ecological perspective. **[07]**

Q-3 (A): Explain the concept of testing of hypothesis in detail. **[07]**

Q-3 (B): State the salient features of correlation and regression from environmental perspective. **[07]**

=OR=

Q-3 (A): Write a short note on partial correlation from environmental perspective. **[07]**

Q-3 (B): Explain the concept of multiple regression from environmental perspective. **[07]**

Q-4 (A): Explain Snedecor's F – statistic concept in environmental statistics. **[07]**

Q-4 (B): What is multiple regression? Explain multiple regression concept with the help of an appropriate example from environmental perspective. **[07]**

=OR=

P.T.O

Q-4 (A): Explain regression analysis from environmental perspective. Also emphasize on importance of study of regression. **[07]**

Q-4 (B): Explain the salient features of environmental design in detail. **[07]**

Q-5ANSWER IN SHORT: [ANY 7] **[14]**

1. Define Simple Hypothesis in environmental research. Give an example.
2. Define Composite Hypothesis in environmental research. Give an example.
3. Define Type I error in environmental statistics. Give an example.
4. Define Type II error in environmental statistics. Give an example.
5. Define Environmental Inferential Research Approach. State its nature.
6. How many climate zones are there? Give an example of environmental data of various climate zones.
7. State any two statistical tools for data analysis in environmental statistics.
8. What do you mean by formal experimental design in environmental statistics? Give an example.
9. State any one measure to deal with air pollution and soil erosion.
10. Say True or False: "Euler Lotka equation in environmental studies gives the extrinsic growth rate." Also justify your answer.
11. Define Environmental Sampling. Give an example.
12. State the types of correlation from environmental perspective. Give an example.

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