

Q4. Write True or False against each statement

(0.5 x 10 = 5 Marks)

- a. Geoinformatics is a new discipline concerned with the modelling of spatial data and the processing techniques in spatial information systems.
- b. Remote sensing can be defined as a system for capturing, storing, checking and displaying data that are spatially referenced to the earth.
- c. Ellipsoids determine shape and provide a best fit of the geoid.
- d. The required fertiliser N is distributed in several applications during the crop growing season using Leaf colour chart.
- e. The idea of nanotechnology was first time introduced by Richard Feynman.
- f. Unsupervised classification is a method where the computer learns to categorize things by looking at examples you provide.
- g. Nano-porous zeolites are advanced formulations developed for controlled nutrient release in sync with different stages of plant growth.
- h. The Russian Academy of Sciences reported improved germination of tomato seeds through the application of a gold nanoparticle solution sprayed onto fields.
- i. A variable rate applicator is used to operationalise precision farming at the farm level.
- j. Fertilizer recovery efficiency of P in rice ranges from 10-20%

PART – B

Attempt ANY FIVE questions. All question carries equal marks

(6 x 5 = 30 Marks)

5. Define modelling, explain its classification in detail, and discuss its limitations.
6. Briefly explain the potential applications of nanotechnology in agriculture.
7. Define the Global Positioning System (GPS) and explain its components and functions.
8. Explain the three measurable parameters of the STCR (Soil Test Crop Response) approach and discuss its application in precision agriculture.
9. Define geoinformatics and how it is used in precision agriculture. List the Geoinformatics tools and techniques used in precision agriculture.
10. Explain the constituents of nano biosensors, list their types, and describe their potential applications in the field.

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