

313359

12526

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answer with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: 10**
- a) Define soil erosion.
 - b) Define the term evaporation.
 - c) State Gully erosion.s
 - d) State the formula for the universal soil loss equation (USLE).
 - e) Define soil Texture.
 - f) List any two physical properties of soil.
 - g) Define Hydraulic conductivity of soil.
- 2. Attempt any THREE of the following: 12**
- a) Describe physical and chemical properties of soil in relation with plant growth.
 - b) Describe the different components of the hydrological cycle.
 - c) Explain the factors affecting soil erosion process.
 - d) Compare contour farming and strip cropping.

P.T.O.

3. Attempt any THREE of the following: 12
- a) Explain splash erosion and sheet erosion.
 - b) Enumerate any four problems of soil erosion.
 - c) Describe the benefits of water harvesting.
 - d) Explain the farm pond in detail.
4. Attempt any THREE of the following: 12
- a) Describe Bench Terracing with its advantages.
 - b) Explain ground water recharging concept with its functions.
 - c) Explain the structural classification of soil in details.
 - d) Write a short note on :-
 - i) Percolation
 - ii) Permeability.
 - e) Explain any two of the following :-
 - i) Runoff
 - ii) Evapotranspiration
 - iii) Infiltration.
5. Attempt any TWO of the following: 12
- a) Describe different forms of precipitation in details.
 - b) Differentiate between temporary and permanent gully control structures.
 - c) Explain any two agronomical measures for soil erosion.
6. Attempt any TWO of the following: 12
- a) Evaluate different methods of rain-water harvesting.
 - b) Explain wind erosion causes and its control measures.
 - c) Differentiate between Contour Bund and Graded Bund.
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