

Erosion

- 1- Name different soil conservation regions of India with salient soil conservation problems in these regions. [IFS (Mains) AG 2019: 8 marks]
- 2- Explain the measures for controlling gully formation. [IFS (Mains) AG 2019: 10 marks]
- 3- Explain different methods for measurement of soil losses from agricultural watersheds (use diagrams wherever required). [IFS (Mains) AG 2019: 10 marks]
- 4- Write short notes on: [IFS (Mains) AG 2019: 2 × 2=4 marks]
 - (i) Movement of soil particles in wind erosion.
 - (ii) Vegetative measures for soil erosion control.
- 5- What do you understand by biological or vegetative measures in a watershed? Describe the measures. [IFS (Mains) AG 2018: 8 marks]
- 6- What are the factors which affect soil erosion by water? Discuss. If the degree of slope is increased 4 times, what will be the relative increased in erosion caused by water? [IFS (Mains) AG 2018: 10 marks]
- 7- What are the different types of soil movement due to wind erosion? Describe how the movements of the particles of various sizes take place in different types of movement. [IFS (Mains) AG 2018: 10 marks]
- 8- Explain in brief, different types of erosion and their causes. [IFS (Mains) AG 2017: 8 marks]
- 9- Write short notes on the following: [IFS (Mains) AG 2017: 4 marks]
 - (i) Universal Soil Loss Equation
 - (ii) Agronomic Erosion Control Measures

- 10- What are the main causes of soil erosion in India? Explain the agronomic practices adopted for controlling the soil erosion. [IFS (Mains) AG 2016: 10 marks]
- 11- What do you understand by gully erosion and how is it different from channel erosion? Also write the stages of gully development. [IFS (Mains) AG 2015: 8 marks]
- 12-The soil erosion will be different for two storms having different rainfall intensities even if the total amount of rainfall is equal. Comment on the statement. Assume suitable data for the two storms, if necessary. [IFS (Mains) AG 2015: 10 marks]
- 13- Strip cropping is one of the important agronomic practices employed to control soil erosion. Explain different types of strip cropping. How is strip cropping laid out in the field? Describe. [IFS (Mains) AG 2015: 10 marks]
- 14- Define weathering. Discuss the mechanics of water erosion. [IFS (Mains) AG 2014: 10 marks]
- 15- Discuss the topographic effect of soil erosion. [IFS (Mains) AG 2014: 10 marks]
- 16- Discuss the symptoms of water erosion in soil. [IFS (Mains) AG 2014: 10 marks]
- 17- Describe the stages of gully development. [IFS (Mains) AG 2014: 10 marks]
- 18- Discuss gulley erosion, its formation and different stages of its formation. [IFS (Mains) AG 2013: 10 marks]
- 19- Discuss raindrop erosion, the factors influencing it and the process. [IFS (Mains) AG 2013: 10 marks]

- 20- Sketch and discuss design and construction of a sand fill poly-bag structure to stabilize a gully. [IFS (Mains) AG 2013: 10 marks]
- 21- Differentiate between contour strip cropping, field strip cropping and buffer-strip cropping for assisting soil and water in a cultivated field. [IFS (Mains) AG 2013: 10 marks]
- 22- Briefly describe various methods of reducing surface wind velocities in wind erosion control. [IFS (Mains) AG 2012: 8 marks]
- 23- Describe Universal soil loss equation (USLE) and discuss its different factors. [IFS (Mains) AG 2012: 10 marks]
- 24- What is gully erosion? Write different stages of gully development. Discuss classification of gullies. [IFS (Mains) AG 2012: 10 marks]
- 25- Write difference between:- [IFS (Mains) AG 2012: 7.5 marks]
- (i) Gully erosion and stream channel erosion
 - (ii) Diversions and waterways
 - (iii) Contour strip cropping and field strip cropping.
- 26- Explain factors affecting erosion by water. [IFS (Mains) AG 2012: 10 marks]
- 27- Discuss working of Coshocton type runoff samplers. How will you design storage tank for Coshocton type runoff sampler? Also discuss limitation of the method. [IFS (Mains) AG 2012: 10 marks]
- 28- Discuss the mechanics of wind erosion. [IFS (Mains) AG 2011: 10 marks]
- 29- What is sheet erosion? How does it differ from rill erosion? Differentiate the soil particles movement by surface creep and salutation. [IFS (Mains) AG 2010: 10 marks]
- 30- Discuss the strip cropping and stubble mulches of crop residues as the measures for controlling wind erosion. [IFS (Mains) AG 2010: 10 marks]

- 31- With a neat sketch, describe the constructional details of a brush dam.
[IFS (Mains) AG 2010: 10 marks]
- 32- Define Universal Soil Loss Equation and discuss in brief its applications.
[IFS (Mains) AG 2009: 10 marks]
- 33- Discuss biological measures suitable for soil erosion control.
[IFS (Mains) AG 2009: 10 marks]
- 34- Mention the causes of soil erosion in India. What measures you will suggest to control the soil erosion?
[IFS (Mains) AG 2007: 10 marks]
- 35- Give a brief note about the extent of wind erosion in India. How the wind erosion is harmful to the agricultural lands.
[IFS (Mains) AG 2007: 10 marks]
- 36- What are the sheet and rill erosions and how they are harmful to the agricultural lands?
[IFS (Mains) AG 2007: 10 marks]
- 37- Write short notes on:
[IFS (Mains) AG 2007: 10 marks]
- (i) Saltation
(ii) Surface creep in wind erosion
- 38- Write in brief about the Erosions Index and Kinetic Energy of natural rainfall, their utility and measurement.
[IFS (Mains) AG 2007: 10 marks]
- 39- What are the different stages in the development of gully? Describe them briefly.
[IFS (Mains) AG 2006: 10 marks]
- 40- Discuss the different types of soil movement by wind erosion.
[IFS (Mains) AG 2006: 15 marks]
- 41- Define critical slope length. How is it related to the land slope?
[IFS (Mains) AG 2006: 10 marks]

- 42- Explain mechanics of wind erosion and mention the factors influencing it.
[IFS (Mains) AG 2005: 15 marks]
- 43- Design the notch dimensions of a wooden slab dam to carry a peak flow of 0.8 cum/sec. The notch has rectangular opening. Width of gully channel is 2.8 m. Assume necessary data.
[IFS (Mains) AG 2005: 10 marks]
- 44- What are the basic components of permanent soil conservation structures and explain their functions in brief.
[IFS (Mains) AG 2005: 10 marks]
- 45- What is the Universal Soil Loss Equation. Explain in detail the various elements involved in the equation. Explain in brief the factor affecting the soil loss.
[IFS (Mains) AG 2005: 15 marks]
- 46- Write short notes on-
- (i) Process of gully development
- 47- Discuss methods for gully control.
[IFS (Mains) AG 2002: 10 marks]
- 48- What is cropping system? Write its benefits in agriculture.
[IFS (Mains) AG 2002: 5 marks]
- 49- How can soil losses be measured?
[IFS (Mains) AG 2002: 05 marks]
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- 51- Explain damages caused by water erosion.
[IFS (Mains) AG 2002: 10 marks]
- 52- Define the following terms:
[IFS (Mains) AG 2002: 16 marks]
- (i) Strip Cropping
- (ii) Grassland Management
- (iii) Effects of vegetation on soil erosion

53- Discuss the different types of soil movement due to wind erosion. What type of soil particles are involved in each movement?

[IFS (Mains) AG 2001: 10 marks]

54- What are the objectives of soil loss equation and explain the procedure how the erosivity index and erodibility index are worked out.

[IFS (Mains) AG 2000: 10 marks]

55- What are items on which attention is to be paid in planning of soil conservation strategy.

[IFS (Mains) AG 2000: 10 marks]

56- Describe different stages of gully erosion. [IFS (Mains) AG 2000: 05 marks]

57- Write short notes on any four: [IFS (Mains) AG 2000: 1.6 marks]

(i) USDA soil Classification

(ii) Ill effects of erosion

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