

A

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 96A03

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2022

Fourth semester

Agriculture Engineering

19UAG403- Soil and Water Conservation Engineering

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Movement of excess precipitation water over the land surface is called as _____ CO1- U
(a) overland flow (b) run-off (c) sheet flow (d) All the above.
2. The removal of soil, from small but well defined channel or streamlets when there CO2- App
(a) hill erosion (b) rill erosion (c) stream erosion (d) soil erosion
3. Crop management factor in USLE has maximum value _____ CO1- R
(a) infinity (b) 1 (c) 2 (d) 3
4. USLE computes _____ CO2- R
(a) sheet erosion (b) rill erosion (c) gully erosion (d) a & b both
5. The horizontal distance of bund depends on CO3- App
(a) VI of bund (b) soil type (c) land slope (d) both (a) and (c)
6. The agronomical measures are used for the control of soil erosion in CO1- R
(a) medium deep soil (b) sandy loam soil
(c) black cotton soil (d) alluvial deep soil
7. The 'contour stone bunds' are used for CO1- R
(a) sheet water harvesting (b) rill flow harvesting
(c) run off harvesting (d) water spreading

8. Which of the following is the in-situ rainwater harvesting method? CO1- R
 (a) conservation tillage (b) conventional tillage (c) conservation farm (d) all the above
9. The reservoir sedimentation does not get affected due to _____ CO1- U
 (a) watershed land use (b) wind direction
 (c) rainfall pattern (d) watershed topography
- 10 In _____ stage, the vegetation begins to grow in the gullies CO2- App
 (a) formation (b) Development (c) Healing (d) stabilization

PART – B (5 x 2= 10 Marks)

- 11 State the factors affecting soil erosion CO1- U
- 12 Enumerate the characteristics of Precipitation CO3- App
- 13 List out the vegetative measures of water erosion control CO3- App
- 14 Describe Principles of Water harvesting CO1- U
- 15 Define Flooding CO1- R

PART – C (5 x 16= 80 Marks)

- 16 (a) Briefly explain types of Permanent gully control structures CO2- App (16)
 Or
 (b) Briefly explain Temporary gully control structures CO2- App (16)
- 17 (a) Briefly explain Components of Runoff and Precipitation Characteristics CO2- U (16)
 Or
 (b) Estimation of CN & Limitations of SCS CN Method CO2- App (16)
- 18 (a) Enumerate the parameters should be considered for bund design CO1- U (16)
 Or
 (b) Briefly explain Mechanical Measures for Water Erosion Control CO1- U (16)
- 19 (a) Briefly explain about Types of Water Harvesting CO2- App (16)
 Or
 (b) Briefly Illustrate design about Flood Water Harvesting CO3- App (16)
- 20 (a) Briefly explain Distribution and Estimation of Reservoir Sedimentation CO1- U (16)
 Or
 (b) Describe the Factors Affecting the Sedimentation of Reservoirs CO1- U (16)

