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Question Paper Code: U4A03

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2024

Fourth semester

Agricultural Engineering

21UAG403-SOIL AND WATER CONSERVATION ENGINEERING

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (10 x 1 = 10 Marks)

1. _____ is also known as inter cropping or co-cultivation. CO1 -U
(a) Mulching (b) Mixed cropping
(c) Terracing (d) Crop rotation.
2. _____ Waterway is the best waterway. CO1 -U
(a) Natural (b) Concrete (c) Erased (d) None of the above
3. Gully erosion can be controlled by CO1 -U
(a) Terracing (b) Monocropping (c) Wall (d) House
4. USLE computes _____ CO1 -U
(a) Sheet erosion (b) Rill erosion (c) Gully erosion (d) a & b both
5. The function of shoulder bund is to _____ CO1 -U
(a) Grassed water ways (b) Temporary gully control structures
(c) Terraces (d) Gabions
6. The function of shoulder bund is to _____ CO1 -U
(a) Medium deep soil (b) Sandy loam soil
(c) Black cotton soil (d) Alluvial deep soil
7. The 'half-moon' structure is used for CO1 -U
(a) Sheet water harvesting (b) Runoff harvesting
(c) Spring water harvesting (d) Water spreading

8. Area contributing surface runoff to a single outlet is called _____ CO1 -U
 (a) Command area (b) Water spread area
 (c) Watershed area (d) Catchment area
9. Flooding and Leaching in Practiced as a Reclamation method in which soil CO1 -U
 (a) Acidic (b) Saline (c) Alkaline (d) All the above
10. In reservoir the storage capacity given for sedimentation is called CO1 -U
 (a) Dead storage (b) Spillway crest level (c) Live storage (d) Attention storage

PART – B (5 x 2= 10Marks)

11. Define strip cropping? CO1 -U
12. Types of soil erosion? CO1 -U
13. Define Contour Cropping? CO1 -U
14. Design principle of Earthen dam? CO1 -U
15. List the factors Affecting Sedimentation of Water Resources? CO1 -U

PART – C (5 x 16= 80Marks)

16. (a) Explain agronomic and mechanical or engineering measures CO1- U (16)
 Or
 (b) Elaborate the factors influencing water erosion. CO1- U (16)
17. (a) Enlist and explain various types of bunds used in soil CO1- U (16)
 conservation practice
 Or
 (b) Briefly explain universal soil loss equation and limitations? CO1- U (16)
18. (a) Explain in detail about conservation tillage and its types CO1- U (16)
 Or
 (b) Describe the construction and management of terrace system CO1- U (16)
19. (a) Briefly explain about Types of Water Harvesting? CO2- App (16)
 Or
 (b) Detail in situ moisture conservation techniques. CO2- App (16)

20. (a) Briefly explain methods Reservoir Sedimentation Control? CO2- App (16)
Or
(b) Explain pre and post sedimentation control methods CO2- App (16)

