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Question Paper Code: 99A03

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2023

Elective

Agriculture Engineering

19UAG903 - WATERSHED PLANNING AND MANAGEMENT

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Smallest finger strip tributaries in drainage basin are marked as CO1- U
(a) order first (b) Order second (c) order third (d) order fourth
2. Dimension of relief is CO1- U
(a) L-1 (b) L (c) L-2 (d) L-3
3. A typical _____ gives an approximate idea about some existing CO1- U
infrastructure of the village
(a) Survey (b) watershed (c) Venn (d) Both (a) & (b)
4. Check dam can be _____ structure CO2- U
(a) Temporary (b) Permanent (c) Spillway (d) Both (a) & (b)
5. Inactive gullies are CO1- U
(a) stabilized gullies (b) eroded gullies (c) without flow (d) all the above
6. Size of gully depends on _____ CO1- U
(a) catchment area (b) runoff rate (c) soil type (d) all the above
7. The kind of spillway used in farm pond as mechanical spillway, is CO1- U
(a) drop structure (b) chute spillway (c) drop inlet spillway (d) all the above
8. The gabion is constructed by using CO3- U
(a) vegetative materials (b) wire net + stones (c) rocks (d) RCC

9. In India, total number of soil conservation regions is CO3- U
 (a) 10 (b) 7 (c) 5 (d) 8
10. The “ IWMP ” refers to CO1-U
 (a) Irrigation Management Programme
 (b) Integrated Watershed Management Programme
 (c) Integrated Dry land Management Programme
 (d) None of the above

PART – B (5 x 2= 10Marks)

11. Write short notes on soil survey? CO1- U
12. Explain the scope of watershed planning? CO1- U
13. Objectives of watershed management? CO1- U
14. Describe broad bed furrows? CO1- U
15. List out the watershed programs & Years in India? CO1- U

PART – C (5 x 16= 80Marks)

16. (a) In detail explain about the process of watershed planning? CO1 -U (16)
 Or
 (b) Briefly explain principles and action plan for watershed management and development? CO1 -U (16)
17. (a) In detail explain about the process of watershed planning of implementation agency, monitoring and evaluation system? CO2- U (16)
 Or
 (b) Derive the theory of Participatory Watershed Management concept with suitable examples? CO2- U (16)
18. (a) How will you design water conservation practices in irrigated lands? Give suitable illustrations CO3- U (16)
 Or
 (b) In detail explain about the temporary gully control structures (TGCS) with neat sketches? CO1- U (16)

19. (a) Explain in detail about Rain water harvesting structures and illustrations? CO3- U (16)
- Or
- (b) In detail explain about design and components Ex-situ moisture conservation principle and practices? CO3- U (16)
20. (a) Briefly explain about Govt. of India guidelines on watershed development Programme? CO1- U (16)
- Or
- (b) In detail explain about Role of NGOs in watershed development? CO1- U (16)

