**Reg. No. :** | | | | | | | | | | |

# Question Paper Code: 59A04

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

Elective

Agriculture Engineering

15UAG904- Watershed Managenent

(Regulation 2015)

Duration: Three hours Maximum: 100 Marks

PART A - (10 x 1 = 10Marks)

1. Smallest finger strip tributaries in drainage basin are marked as CO1- R

   (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) $L^{-2}$

3. A typical_____ gives an approximate idea about some existing infrastructure of the village CO2- R

   (a) Survey (b) watershed (c) Venn (d) Both a & b

4. Check dam can be _____structure CO2- R

   (a) Temporary (b) Permanent (c) Spillway (d) Both a & b

5. Which is ‘delayed flow’ CO3- R

   (a) direct runoff (b) base flow (c) interflow (d) none of the above

6. Gully erosion is the advance stage of CO3- R

   (a) splash (b) sheet (c) rill (d) none of the above

7. The drainage divide may be the CO4- R

   (a) valley (b) ridge (c) forest land (d) both a and b

8. Design of farm pond is done for the return period of CO4- R

   (a) 15 –years (b) 10 –years (c) 25 –years (d) 5 –years

9. The watershed is synonymous to CO5- R

   (a) drainage basin (b) drainage area (c) catchment (d) all the above

10. The un channeled overland flow is called as _____ CO5- R

(a) sheet flow (b) areal flow (c) runoff (d) all above

PART – B (5 x 2= 10 Marks)

11. Explain the land capability sub-classes? CO1 U

12. Explain financial benefits of watershed planning? CO2 A

13. Explain classification of watershed? CO3 U

14. What is watershed development? CO4 R

15. Explain DPAP? CO5 A

PART – C (5 x 16= 80Marks)

16. (a) Explain in detail about Land Capability classification (LCC)? CO1-U (16)

Or

(b) Explain in detail about watershed with suitable examples and illustrations? 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- Ana (16)

18. (a) How will you design water conservation practices in irrigated lands? Give suitable illustrations CO3- Ana (16)

Or

(b) In detail explain about the temporary gully control structures (TGCS) with neat sketches? CO3- U (16)

19. (a) Briefly explain about soil conservation practices? Give suitable illustrations CO4- Ana (16)

Or

(b) In detail explain about design and components of Farm pond? CO4- Ana (16)

20. (a) Briefly explain about Watershed modeling? Give suitable flowchart? CO5- Ana (16)

Or

(b) In detail explain about river valley project? CO5- U (16)