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**Question Paper Code: 54A04**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fourth Semester

Agriculture Engineering

15UAG404- SOIL AND WATER CONSERVATION ENGINEERING

(Regulation 2015)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

1. The sequence of water erosion is CO1- R  
(a) Splash, sheet, rill, gully (b) Sheet, gully, rill  
(c) Rill, Splash, sheet (d) Gully erosion, Splash, sheet, rill
2. The particles detachment is more in CO1- R  
(a) Sandy soil (b) Forest lands (c) Clay soil (d) Hill face
3. Movement of excess precipitation water over the land surface is called CO2- R  
as \_\_\_\_\_  
(a) overland flow (b) run-off (c) sheet flow (d) all the above
4. A runoff plots consist of CO2- R  
(a) Multi slot divisor (b) Sediment sampler (c) Measuring cylinder (d) All above
5. If the rain occurs after a long dry spell then \_\_\_\_\_ is more , CO3- R  
hence it contribute less runoff .  
(a) Infiltration rate (b) Evaporation (c) Transpiration (d) Percolation
6. The H.D(horizontal distance) of bund depends on CO3- R  
(a) VI of bund (b) Soil type (c) Land slope (d) Both (a) and (c)
7. The height of contour bund generally ranges from 0.30 to CO4- R  
(a) 0.5 m (b) 1.0 m (c) 1.5 m (d) 2.0 m

8. In cantilever type retaining wall the key can be fixed CO4- R  
 (a) Near the toe (b) Middle of base (c) Near the heel (d) All above
9. Which of the following is the source of sediment yield from a watershed? CO5- R  
 (a) Soil erosion from forests (b) Occurrence of flood  
 (c) Mining excavation (d) All above
10. A low area where the land is saturated with water is \_\_\_\_\_ CO5- R  
 (a) irrigated land (b) semi wet land (c) wet land (d) par wet land

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. What are different types of erosion? Explain in detail. CO1- U (8)
12. Explain about the land use capability classification in detail CO2-U (8)
13. Explain in detail about the Agronomical and Mechanical measures of water erosion control. CO3-U (8)
14. What are the components, design principles, construction and protection of Check dam and earthen dam? CO4- U (8)
15. What are the sources of sediments? Explain the layers of sediment load present in the Reservoir sedimentation. CO5- U (8)