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**Question Paper Code: 56A02**

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

Sixth Semester

Agriculture Engineering

15UAG602 - HYDROLOGY AND WATER RESOURCES 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. Any form of moisture reaching the earth surface is called CO1-R  
(a) Infiltration      (b) Precipitation      (c) Evaporation      (d) Transpiration
2. \_\_\_\_\_ is defined as the process by which water enters the CO1-R  
sub-surface strata of the earth.  
(a) Infiltration      (b) Precipitation      (c) Evaporation      (d) Transpiration
3. The Hydrologic equation is simply the statement of the law of CO2-R  
conservation of mass and is given by  
(a)  $I = O - S$       (b)  $I = O * S$       (c)  $I = O + S$       (d)  $I = O / S$
4. The part of runoff which enters the stream immediately after CO2-R  
precipitation is called  
(a) Perennial stream      (b) Base flow      (c) Drainage flow      (d) Direct runoff
5. State the Dicken's formula to calculate the flood discharge CO3-R  
(a)  $Q = C + A$       (b)  $Q = C - A$       (c)  $Q = C / A$       (d)  $Q = C * A$
6. The flood forecasts are issued on the basis of the analysis of CO3-R  
weather charts and indicate with the next \_\_\_\_\_ hours  
(a) 12 to 24      (b) 8 to 12      (c) 24 to 48      (d) 12 to 15
7. Horton's water balance equation is CO4-R  
(a)  $E = I - Q - S$       (b)  $E = I + Q - S$       (c)  $E = I - Q + S$       (d)  $E = I + Q + S$

8. \_\_\_\_\_ is the reservoir provided with sluice gate and sluice ways which can be operated by manual. CO4-R
- (a) Detention            (b) Retention            (c) Levees            (d) Flood wall
9. \_\_\_\_\_ is a saturated formation of earth materials which not only stores water but yields sufficient quantity of water CO5-R
- (a) Aquiclude            (b) Aquitard            (c) Aquifer            (d) Aquifuge
10. A Storm which contributes to the ground water is known as CO5-R
- (a) Percolation            (b) Influent stream            (c) Effluent stream            (d) Infiltration

PART – B (3 x 8= 24 Marks)

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

11. Explain the hydrological cycle with neat diagram. CO1-R            (8)
12. Define watershed. Explain it with its Catchment characteristics. CO2-R            (8)
13. Explain the structural and non-structural approach for flood management CO3- App            (8)
14. Explain briefly about the different storage zones of the reservoir CO4-U            (8)
15. What are the Groundwater Regions of India? Explain in Detail CO5-U            (8)

