

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total No. of Pages : 02

Total No. of Questions : 08

B.Sc. (Agriculture) / Honours (Agriculture) (Sem.-5)
FUNDAMENTALS OF SOIL AND WATER ENGINEERING

Subject Code : BSAG-501

M.Code : 74165

Date of Examination : 26-07-21

Time : 2 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE question(s), each question carries 12 marks.**

1. Explain the two principles of surveying. The length of a line measured by means of a 20 m chain was found to be 634.4 m. It was afterwards found that the chain was 0.05 m too long. Determine the true length of the line.

2. Define contour interval and horizontal equivalent. Explain the direct method of locating contours.

3. The following consecutive readings were taken with a level: 0.894; 1.643; 2.896; 3.016; 0.954; 0.692; 0.582; 0.251; 1.532; 0.996; 2.135. The instrument was shifted after the fourth and the eighth readings. The first reading was taken on a staff held on the bench mark of RL 100.00. Rule out a page of level field book and enter the above readings. Calculate the RLs of the points and show the actual checks. What is the difference of levels between the first and the last point?

4. Classify the different irrigation projects in relation to the culturable command area. Also discuss the jurisdiction of water resources of India.

5. What is scope of lift irrigation from canals in relation to the topography of adjoining irrigation command area? Also list the different water lifting methods.

6. Differentiate between drip and sprinkler methods of irrigation in terms of their efficiencies, suitability and adoption rate.

7. What do you understand by the term 'soil erosion'? Discuss in detail the role of various agents in causing soil erosion.

8. What is terracing? Explain the different types of bench terracing and its design procedure.

Note: Any student found attempting answer sheet from any other person(s), using incriminating material or involved in any wrong activity reported by evaluator shall be treated under UMC provisions.

Student found sharing the question paper(s)/answer sheet on digital media or with any other person or any organization/institution shall also be treated under UMC.

Any student found making any change/addition/modification in contents of scanned copy of answer sheet and original answer sheet, shall be covered under UMC provisions.