

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Agriculture 2015 & Previous Admissions (New Scheme)
1st Semester Re-Examination-May-2017

Cat. No: Engg 1101

Marks: 50.00

Title: Fundamentals of Soil, Water and Conservation Engineering (1+1)

Time: 2 hours

I Fill in the Blanks

(10x1=10)

1. One cubic metre = ----- litre
2. Propeller and mixed flow pumps are suitable for ----- operation.
3. Smallest division of a metric leveling staff is ----- cm.
4. Leveling should always commence from a -----
5. ----- erosion is a normal and usually beneficial process occurring in centuries.
6. Sugarcane is generally irrigated by ----- method of irrigation.
7. In ----- ranging the end stations are not intervisible.
8. Surveying is the art of determining ----- positions of different features on the surface of earth.
9. The border strip has no ----- but has a ----- in the direction of irrigation.
10. The ----- is provided where the lateral line terminates.

II Write short notes on any FIVE

(5x2 = 10)

1. Define contours and give characteristics of contours.
2. Give a classification of surveys based on the instruments used.
3. Write short note on reciprocal leveling.
4. Write short note on contour farming.
5. Write short note on stream bank erosion.
6. Explain various functions served by bench terraces.
7. What are offsets? How are they taken and recorded? Why it is desirable to take short offsets?

III Answer any FIVE questions

(5x4=20)

1. Describe various types of sprinkler system based on portability.
2. What do you mean by bench mark? Explain various types of bench marks.
3. What are the precautions necessary in the use of weirs?
4. What are the factors affecting soil erosion by water? Briefly explain role of each factor.
5. Explain the process of reciprocal leveling and state its advantages.
6. Describe how you would range a survey line between two points which are not intervisible due to an intervening raised ground.
7. Briefly explain different forms of erosion by water.

IV Write essay on any ONE

(1x10=10)

1. Explain the different methods of soil and water conservation for hilly regions.
2. Draw a neat sketch of sprinkler system of irrigation. Describe about various components of the system.
