KERALA AGRICULTURAL UNIVERSITY
B.Sc. (Hons.) Agriculture – 2009 Admission - IInd Semester
Final Examination - August 2010

Cat. No. : Agro 1203	Max. marks: 80
Title : Irrigation and Water Management (2+1)	Time : 3 hours

I. Fill up the blanks / Match the following / State True or False / Define   10 x 1 = 10

1.   The average annual rainfall of India is _____cm.

2.   The total water potential in India is _____.

3.   One atmosphere equals to _____.

4.   The water that moves in response to gravity is called _____.

5.   _____ is the upper limit of available moisture.

Match the following:-

6.   a. Basin Method   :   i. Orchard crops

      b. Drip irrigation   :   ii. Rice

                                         iii. Ragi

State True or False

7.   One cumec equals to thousands litres of water

8.   Soil texture refers to arrangement of soil particles

9.   Soil moisture tension at field capacity is 1/3 atmosphere

Define

10.   Adhesion

II. Write short notes / answers on <u>ANY TEN</u>   10 x 3 = 30

1.	Effective root zone	7.	Available water
2.	Irrigation development in Kerala	8.	Effective rainfall
3.	Capillary water	9.	Universal soil loss equation
4.	Critical stages of crops	10.	Farm ponds
5.	Role of water in plants	11.	Wind breaks
6.	Moisture extraction pattern	12.	NWDPRA

III. Write short essays on **ANY SIX** of the following   6 x 5 = 30

1. Soil moisture constants

2. Soil –water-plant relationship

3. Empirical methods of calculation of ET_O

4. Methods of determining water requirement of crops

5. Agronomic techniques to improve water use efficiency

6. Agronomic measures of soil conservation

7. Land capability classification and its utility

8. Objectives and concept of watershed management

IV. Write an essay on **ANY ONE**   1 x 10 = 10

1. Scheduling irrigation based on soil moisture status

2. Agro techniques for efficient management of rainfed crops